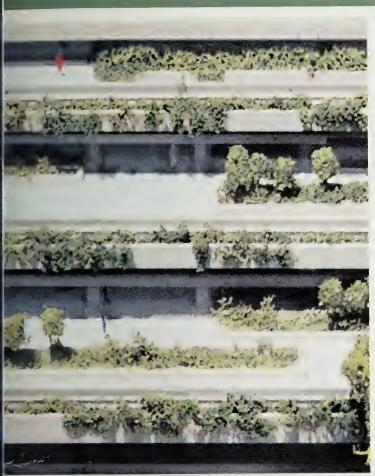
yal Ontario Museum 27th Annual Report July 1976 - June 1977







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The cover: the architects' model of the renovated and expanded Museum.

Front: bottom, the new Terrace Galleries as they will appear from Bloor Street; top left, detail of the Terrace Galleries; top right, view of the Museum from the southeast, showing the upper part of the new Curatorial Centre in the area at present occupied by Exhibition Hall and the car park.

Back: overhead view showing the Terrace Galleries in the foreground and, beyond, the roof of the Curatorial Centre.

(Photos by Panda Associates)



Royal Ontario Museum 27th Annual Report July 1976-June 1977

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Report of the Board of Trustees of the Royal Ontario Museum

To Her Honour, the Lieutenant-Governor in Council:

After a delay of a few months early in 1976 imposed by a government review of fiscal restraints, planning for the Royal Ontario Museum's renovation and expansion continued throughout the remainder of the year. In this planning, the ROM recognized that the Museum belonged to the public and that it was a "people place". Thus much of the space lost over the years for necessary storage of artifacts and for laboratories and offices must be returned to public use. In September of 1976, the Board authorized a conceptual study of two options depending on available funds. In February of 1977, the Board authorized detailed planning for a \$42.5 million project as described in the Director's report. The funding plans for the programme include grants from the Province of Ontario totalling \$12.75 million and a conditional commitment from Wintario for funds to match private donations, presently estimated to be in the order of \$10 million. Additional funding will be sought from the federal and municipal governments.

At the end of June, all Museum departments had completed their estimates of space requirements and the Museum's architects, Mathers & Haldenby and Moffat, Moffat, & Kinoshita were completing the jigsaw puzzle of allocating departmental spaces within the available floor space. The Board has decided that, with the exception of the Canadiana Department now housed in the Sigmund Samuel Building, and the Botany Department, all of the Museum's departments, including those located in four different rented locations away from the main site, will be housed in the new complex scheduled for completion in 1981.

In the renovation of the existing building and in planning for new construction, 30,500 square feet will become available for use as galleries from relocation of departmental offices and laboratories to the new Curatorial Centre, while a further 71,400 square feet will be provided for new galleries. This means that after the total planned expansion of 312,000 square feet, there will be more than 213,000 square feet of public gallery space compared with the present 159,500 square feet of galleries.

In December 1976, the Board of Trustees, on the recommendation of the Museum's management, agreed to apply to the National Museums of Canada to be an Associate Museum within that organization. In March of this year, the Museum was advised that the application had been approved by the Board of Trustees of the NMC. The Associate Museum programme of the NMC seeks to develop a national network of competent, high-quality museums to facilitate the circulation of artifacts and collections of national interest. There are now twenty-five Associate Museums in the programme including the four National Museums in Ottawa. Qualifying museums normally own significant collections, possess adequate facilities and equipment, and offer services of a high standard. Assistance is available to Associate Museums to expand their work at national, regional, and local levels, to encourage the exchange of their collections, and to continue to improve facilities and services.

The Royal Ontario Museum is pleased to find that as an Associate Museum it is continually being invited to contribute from its own store of operating knowledge toward the better management of other institutions in the country. In exchange, the Royal Ontario Museum is receiving assistance in our cataloguing programmes and tangible support in planning for renovation and expansion. Although the association is creating additional work for Museum staff, this is necessary to support the Museum's major position in the Canadian national museum community.

The Museum continues to work closely with the officers of the Ministry of Culture & Recreation, the Honourable Robert Welch, Minister. We are indeed grateful to Mr. Robert Johnson, the Deputy Minister, to Mr. Douglas McCullough, the Assistant Deputy Minister for Arts Development, and to many others in our government service for their support and wise counsel as the Museum continues to grow, both in service to our public and as we plan for the future.

Without the support of our friends, the Museum would be very hard pressed to maintain its many programmes. I refer both to the Museum Volunteers and to the Members' Committee who provide many hours of voluntary work, and also to the many friends of the Museum who provide their support through donations and gifts of artifacts. My thanks go to all those who in so many different ways help to make the ROM a vibrant, living place.

The Board particularly appreciates the contribution of the members of the Museum staff. The planning for renovation and expansion has imposed great hardship, particularly on the curators who are so deeply involved. I have appreciated their support throughout the past three years. Also, I would like to express to the remainder of the staff from the oldest to the newest, how much I have appreciated their courtesy and always willing help. We have a great staff and we are indeed fortunate in their quality and dedication of service.

During the year, the Board has lost the services of Miss Ella Martin and Mrs. Joan Randall whose terms of office have expired, as well as of Mr. Nicola Colangelo, whose business has taken him out of Canada. While all have made their distinctive contribution to the Board, I would particularly thank Mrs. Randall as my Vice-Chairman for her support and assistance. She will continue to be associated with the ROM, and with the museum community throughout Canada as she continues to work toward a greater communication and exchange of ideas among the trustees of cultural institutions in this country.

The members of the Museum have elected Mrs. John A. Rhind and the provincial government has appointed Mrs. Richard Rohmer, each to be a member of the Board for a three-year term ending June 30, 1980.

It was with regret that I did not find it possible to accept reappointment as your Chairman. During my term in office, I have received outstanding support from members of the Board and I am certain that, because of their interest and dedication, the Museum will continue to grow under their competent leadership.

On behalf of the Board of Trustees

Gordon D. Wotherspoon Chairman

Toronto, Ontario June 30, 1977

Director's Report

In my report last year I referred to the administrative organization which was evolving within the Museum. The Board of Trustees' Statement of Intent of September 1975 called for a reorganization of the earlier structure, and evolution has proceeded during 1976/77. The chart on the facing page calls attention to some of the major changes.

The Curatorial Service Departments (Conservation, Preparators, Registration, and Library & Archives) were earlier intended to constitute a separate administrative group. It was decided during the summer of 1976 to make them directly responsible to the Associate Director — Curatorial. Dr. Allan J. Baker of Ornithology had the important responsibility during the year as the first Coordinator of these Curatorial Service Departments.

A number of important structural developments have occurred in Education and Communication during the year. The previously separate departments of Exhibitions and Programmes and Public Relations were combined as the Programmes and Public Relations Department, with Mr. David A. Young as its head. Exhibit Design Services has begun to evolve under its new head, Mr. Lorne E. Render, who joined the ROM's staff in March. Mr. Render was formerly responsible for exhibit design at the Glenbow Institute in Calgary. Exhibit Design Services was formed by amalgamating several small separate ROM departments.

The ROM's graduate programme in Museology has now been in operation for seven years, in cooperation with the School of Graduate Studies at the University of Toronto. Nearly 100 graduates of the Master's degree course occupy important museum and art gallery positions across Canada and elsewhere. With the retirement of Mr. Hewitt Bayley, the programme's first chairman, it was decided to combine Museology with Ontario Museums Support and Advisory Service (OMSAS) into a single department with Dr. Walter M. Tovell as its head. Mr. David L. Newlands of Canadiana has become the coordinator of Museology in the new combined department.

Mrs. Sonja Tanner of the Registration Department has served the Museum well as the acting head of Extension Services during the past few months. Mr. Archie H. Foss of Kingston will assume this permanent position on August 1, 1977.

The major change in Administration and Facilities was the appointment on October 25, 1976, of Mr. William Takaki as the head of Financial Services. Also, Revenue Services, headed by Mr. Bob Deslslets, has assumed greater responsibility in coordinating various revenue-producing activities.

The Director's Advisory Committee (DAC) has been functioning well. Mr. Gordon Bristowe, Assistant Director — Administration and Facilities, has succeeded in gathering together information about existing policies and procedures governing the many aspects of the Museum's activities. These are now being reviewed.

Planning for the long-awaited renovation and expansion of the Museum has occupied much of the time of Board and Staff members alike. On September 1, 1976, the Board authorized a resumption of full-scale planning for the renaissance, after the planning pause which had been considered prudent during the previous fiscal year. The Project Director and architects were instructed to develop several different schemes for the site to fit a number of possible total capital budgets. In March 1977, the Board of Trustees voted unanimously to proceed as rapidly as feasible with the detailed planning of a \$42.5 million renovation

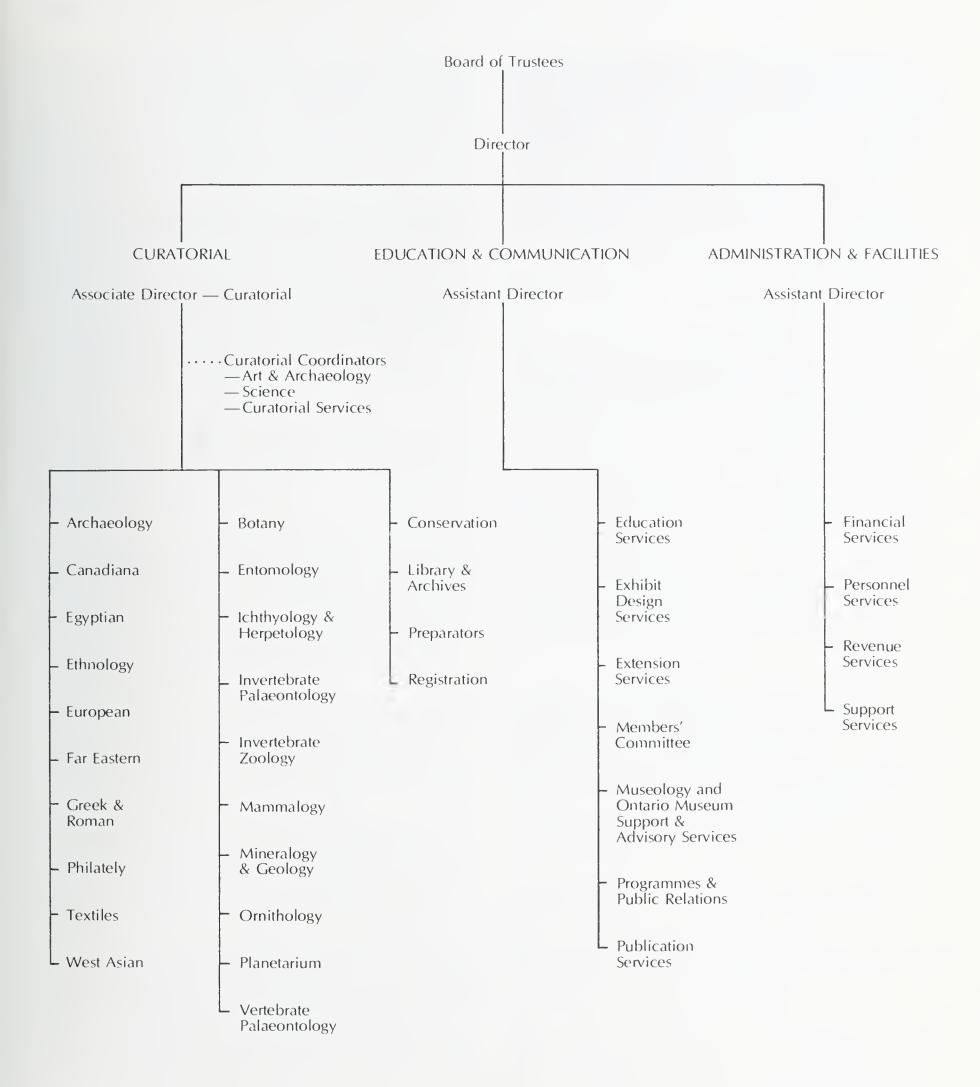
and expansion programme. The planning duties originally assigned to Mr. David H. Scott as Project Director having been substantially and most ably completed at this point, Mr. Scott became Project Adviser and Mr. Henry Graupner was appointed as Project Director.

The Museum is fortunate that its major space needs at least to the year 2000 can be met through in-fill construction on the familiar site. Our architects are to be congratulated upon having produced plans which essentially meet the Museum's space needs, fit the available site, and can hopefully be brought to fruition within budget. At the same time they have been sensitive to the aesthetic and architectural significance of the existing building, and have actually planned to preserve and highlight the intricate detailing of the 1912 and 1932 wings.

The Curatorial Centre in the south courtyard is planned as a nine-storey structure (three levels below grade) which will make optimal use of the available space on that portion of the site. This new building will provide air-conditioned offices for staff of the curatorial and curatorial service departments, and several different types of controlled environments for the storage of reference collections, artifacts, and specimens ranging from pelts and fur garments to Chinese bronzes and Egyptian sarcophagi. The existing Exhibition Hall (designed originally to protect the Ming Tomb) and Planetarium Annex will be razed to make room for the Curatorial Centre. A twenty-foot-wide glass-enclosed atrium space will separate the new building from the existing wings, will permit diffused natural light to reach the lower levels, and will provide a convenient location for passenger and freight elevators which must accommodate to a variety of floor levels between existing and new construction. It is planned that the plaza in front of the Planetarium will become a very important arrival and group assembly area. A new group entrance at the basement level of the south end of the 1932 wing will provide direct access into the Museum from the subway and will lead into an area of special cloakroom, washroom, and cafeteria facilities for students.

When the Curatorial Centre is ready for occupancy, the existing H-shaped Museum building will become available for major renovation. Because service ducts and fire stairs have vertical orientations, it will probably be necessary to vacate all floors of one wing simultaneously so that new air distribution ducts, plumbing, and electrical circuitry can be installed in the most efficient manner possible. Although we remain unwavering in our determination to keep the Museum open to its public during the renovation phase, we are aware of the major inconveniences which will be encountered as the basic systems of the old building are modernized and expanded.

The really signficant increase in public gallery area will come with the completion of the Terrace Galleries in the portion of the north courtyard currently occupied by the Chinese Garden. Present planning calls for the enclosure of the Ming Tomb and related artifacts in a sunken gallery in order to protect them from atmospheric pollutants. It is intended that five levels of the garden wing will be occupied by galleries, and an escalator will occupy atrium space between the present crossbar of the "H" and the new construction to the north. We are particularly pleased that it has been possible to design the Terrace Galleries in such a way as to preserve and enhance the park along Bloor Street. Every precaution will be taken to prevent damage to the mature oak trees during the construction phase, and the park will become available for public enjoyment.



Director's Report

Relations have never been better between the Board of Trustees and the staff of the Museum. As Mr. G.D. Wotherspoon ends his term as Chairman of the Board, I take this opportunity to thank him on behalf of the entire staff for his excellent leadership. We will not lose sight of the fact that it was under Mr. Wotherspoon's guidance that the Board was able to take its decision to proceed with the renovation and expansion project. Five different Board/Staff Committees have worked throughout the year to assist with the formulation of Museum policy in those areas where particular needs have been identified. These committees with their chairmen are as follows:

Collections (Mrs. E. Redelmeier) Communications (Mrs. W.O. Randall) Finance (Mr. A.M. Henderson) Personnel (Mr. P.G. White) Revenue Services (Mrs. W.L.C. McGill)

In addition, the Project Control Group, acting in place of the Property Committee, has monitored all aspects of the planning for the expansion and renovation of the Museum. Mr. H. Donald Guthrie, Vice-Chairman of the Board, has served as the Board member responsible for this Group.

One often hears it said that an organization would be poorer without its volunteers. The ROM would be immeasurably poorer and in fact would not be able to carry out a number of its programmes and activities at all were it not for its volunteers, primarily the members of two groups, the Members' Committee and the Museum Volunteers. The duties performed by our volunteers range from service as highly professional and very erudite tour leaders through permanent galleries and special exhibitions to service at Information and Membership desks and at typewriters in behind-the-scenes offices. The entire ROM appreciates and thanks its volunteers.

That the Museum's staff is outstanding is attested to by the departmental reports and the bibliography which follow. Few groups of 350 full-time staff of any organization could equal the range of professional talents and expertise represented by the ROM's dedicated employees. Great buildings do not make great museums. It is the collections and staff of the ROM that make it one of the world's truly great museums.

James E. Cruise Director June 30, 1977

Renovation and Expansion **Project**

On July 1, 1976, the start of the period covered by this Annual Report, the Renovation and Expansion Project was in a state of virtual suspension. Uncertainty as to available funding had led the Board, with the greatest reluctance, to decide to wind down physical planning in an orderly way pending clarification of the financial picture. This process was completed with the submission of the *Interim Planning Report* in March of 1976.

Prospects for the reinstatement of planning grew steadily brighter during the summer of 1976, with the reconfirmation of a \$12.75 million grant by the Government of Ontario, plus contingent approval of a Wintario contribution of the order of \$10 million. Detailed preparations were made for a planning restart, including adjustments to the organizational structure of the project. These included the establishment of three Planning Groups coordinated by the Project Director: Group 1 made up of the architects and sub-consultants, and responsible for facilities planning; Group 2 under Mr. J. Di Profio, responsible for exhibits and galleries; and Group 3 under Mr. F. Dunbar, responsible for capital funds acquisition.

On September 1, 1976, the Executive Committee of the Board reviewed the financial situation and options, and instructed the Project Office to proceed with the development of two planning concepts to correspond with either extreme of a budget range of \$42.5 to \$36.75 million.

These two schemes were presented to the Project Control Group on November 16, 1976, and instructions were given to proceed with the further development of the \$42.5 million plan (known as Scheme A.) On February 16, 1977, the Board reviewed a detailed presentation of the Scheme A concept and options, along with cost, phasing, and schedule implications, and voted unanimously to proceed with detailed planning based on the Scheme A concept, at a total budget of \$42.5 million, for completion of construction and renovations by late 1981.

Upon the achievement of this benchmark in the planning process, and by long-standing arrangement, Mr. David Scott asked to be relieved of his responsibilities as Project Director. Mr. Henry Graupner, who was appointed Assistant Project Director in the fall of 1976, assumed the directorship, while Mr. Scott continues to provide specified advisory services.

The current stage of planning involves the very detailed analysis of the needs of each department, and the reconciliation of requests for space with the total available, and with the budget. This process is being supervised by a widely representative Departmental Needs Analysis Committee, chaired by Mr. Graupner.

The next major step in planning will be the submission of the *Final Planning Report*, scheduled for the early fall of 1977. This report will encompass all of the conclusions of the Departmental Needs Analysis Committee with resultant layouts, as well as a summary of all other matters bearing on the planning process. Upon approval of this report, working drawings and specifications will be prepared with a view to starting construction early in 1978.

Planning Group 2 (Exhibits Communication Task Force)
The Exhibits Communication Task Force was established in
October of 1976 to develop policies and plans for
communication and education through the galleries and exhibits
of the Museum.

The first phase of the work of the ECTF was a series of investigative activities, the findings from which were presented on June 1, 1977, in the *Opportunities* and *Constraints* report. These activities included interviews with all curatorial and many non-curatorial departments to solicit views and concerns about galleries. In addition, surveys were conducted to provide information about the ROM visitor and to investigate the patterns of use of the Museum by visitors.

Four work groups were established by the ECTF to undertake specific tasks. The Student Entry Work Group was formed to recommend plans for improving the reception of school groups entering the Museum. The work of this group was completed and a new entrance via the postern stairwell has been put in service.

The Museum Visitor Reception Work Group was established to investigate and recommend improvements to the main Rotunda and other public areas of the Museum. Its recommendations include the centralization of all reception functions (cashier, information, reception, and membership) into a core desk system situated in the centre of the Rotunda, and the development of a signage and orientation system. Implementation of these recommendations is in progress.

The Discovery Room Work Group has recommended that an experimental discovery room be developed to evaluate the discovery room concept. The recommendation has been approved by the Director and the experimental room is scheduled to be opened during July of 1977.

The Theme Work Group was charged with the responsibility of investigating the theme concept and possible applications of a theme for the Museum. Its first report is included in the *Opportunities and Constraints* report.

Interim Guidelines for Gallery Renovations was adopted by the ECTF in November 1976 as the basis for considering renovation proposals prior to the completion of a detailed plan for exhibit communications. A number of proposals based on these guidelines have been approved.

Planning is under way for other renovations. Communication Design Teams have been established to develop concepts for some new specific and inter-disciplinary galleries.

The next phase of the work of the ECTF will involve producing an overall gallery plan, which is scheduled for completion by April 1, 1978.

Renovation and Expansion Project

Planning Group 3 (Financial Resources)

In July 1977 the Board of Trustees authorized the establishment of an office for the coordination of funding activities associated with the Museum's renovation and expansion project. The Secretary to the Board of Trustees, Mr. F.J. Dunbar, was assigned additional responsibilities as Funding Coordinator. This office provides for the coordination of all activities concerned with the acquisition of funds for the project. The office is also responsible for implementing procedures to obtain funds from established sources and to receive, record, and acknowledge donations.

The funds estimated as being available for the project consist of grants from the federal government, from the Province of Ontario, and from municipal sources. There will also be a public fund-raising campaign and a matching grant from Wintario.

The Province of Ontario has reaffirmed the provision of a grant of \$12.75 million, payable at \$2.5 million per year. Wintario has confirmed a conditional commitment to provide matching funds to donations received from other than federal, provincial, or municipal government sources, up to a specified percentage of the total cost of the project in accordance with current Wintario procedures.

Unsolicited donations to the Museum's expansion fund totalled \$286,000 as of June 30, 1977.

Bringing the Museum to the People

Over a million people visit the Museum each year, but the influence of the ROM reaches far beyond its walls to countless others who may never have visited the home base. Outreach is a Museum-wide undertaking. Almost every department participates to some degree in the effort to extend the vast resources of the Museum to touch, in significant ways, as many lives as possible.

Although the Department of Extension Services provides the focus for Museum outreach, its programmes depend on the curatorial departments for materials and expert advice. The curatorial departments in turn require the assistance of other departments whose work is done largely behind the scenes. For example, neither the loans made directly by the curatorial departments to outside borrowers nor the exhibitions provided by Extension Services could be achieved without the essential support of the Conservation, Registration, and Preparatorial departments.

Loans

During the past year the Museum made hundreds of loans of thousands of specimens and artifacts for purposes of both display and research. Loans of this kind are made each year to a wide variety of institutions and agencies in Canada and abroad. Although it is not possible to mention every department or to provide a detailed list of all such loans in this section of the Report, a small sampling will provide some indication of the tremendous significance of this aspect of Museum extension. Further indications of the scale of ROM involvement in the life of communities across Canada and abroad will be found throughout other sections of this Report.

"Greek and Roman Life in Miniature", organized by the Greek and Roman Department, travelled with Mrs. Neda Leipen to the MacKenzie Art Gallery, Trent University, and to the Museum of Anthropology, University of British Columbia. This tour was organized as an addition to the regular curatorial loan programme of this department. As with the Greek and Roman Department, so also with Textiles. A special loan of French fabrics was prepared and sent to honour the opening of the municipal museum in Jouy-en-Josas, near Paris, France; in addition, the Textile Department contributed to exhibits such as "Sporting Scenes", organized by the McCord Museum in Montreal.

The European Department lent a collection entitled "English and European Ceramics" to the Joseph Brant Museum in Burlington, and firearms to the Town of Haldimand Public Library. However, the loan of seven chairs to the Art Gallery of Ontario for their special opening exhibition, "Chairs", was more typical of the kind of assistance provided. "Chairs" was not only displayed in Toronto but was also circulated to six other Ontario centres. Similarly, the Far Eastern Department made a loan of Japanese swords and armour as a contribution to the "Treasure Swords of Japan" exhibit, organized by the Science Centre. The Egyptian Department contributed material for the exhibition "Paleopathology" to the Academy of Medicine in Toronto, and the Mammalogy Department loaned four bronze statues of African animals to the National Museum of Natural Sciences in Ottawa.

The Ethnology Department made approximately 30 loans to various institutions, including galleries, museums, libraries, and Native cultural centres and associations during the year 1976-77. For example, two paintings by Paul Kane were lent to the Museum of Fine Arts in Boston for an exhibition entitled "Frontier America", which travelled to The Hague, Zurich, Essen, and Brussels; Haida Indian artifacts were lent to the Queen Charlotte Islands Museum Society in Skidegate, B.C. for the opening of the

museum; a collection of Indian and Eskimo games was sent to the Theatre and Arts Community Centre in North Bay, Ontario, as part of their Ontario Winter Games; and a display of Indian artifacts was prepared for the Canadian National Sportsmen's Show in Toronto.

The Ornithology Department made 75 loans involving over 600 specimens. The Invertebrate Palaeontology Department arranged three small displays of fossils for rock and gem shows in addition to lending over 600 specimens for research, display, and teaching purposes. The Mineralogy and Geology Department also produced eight small displays for gem and mineral shows in Canada and the United States, in addition to a regular loan programme of specimens.

In addition to separate departmental loans, there are also several multi-departmental loans each year. For example, the Textile and West Asian departments made a loan to the Arts Council of Great Britain for a major exhibition entitled "The Arts of Islam". On the local scene, the Canadiana and European departments made a combined loan to the Toronto Historical Board for an exhibition at MacKenzie House; the Egyptian, Ethnology, European, Far Eastern, and Textile departments made a loan of jewellery and gems to the National Museum of Natural Science in Ottawa for an exhibition entitled "Gemstones", which subsequently travelled to Toronto for display at the ROM; and the Office of the Chief Archaeologist and the Ethnology Department made a significant contribution to the exhibition "Sacred Circles—2,000 Years of North American Indian Art" organized by the Arts Council of Great Britain, and circulated to borrowers in the USA.

The Speakers' Bureau

In 1976-77 a new programme developed by the Extension Services Department, the ROM Speakers' Bureau, provided an illustration of the manner in which this department serves as a primary focus for Museum outreach. Speakers from 16 different Museum departments participate in this programme, which is offered as a free service to community organizations and associations, library audiences, study groups, and service clubs. The ROM Speakers' Bureau has proved to be a most popular and effective form of Museum extension.

The programme offered in Owen Sound and Kincardine last March demonstrates the flexibility of the Bureau to respond to special requests. Two speakers from the Canadiana Department and one from the European Department presented a half-day session on antiques. An open-line radio show before the actual presentation provided excellent publicity and also formed an integral part of the overall programme in these communities. Local residents brought more than 250 items to two different identification clinics, where all three experts were available to answer questions.

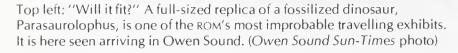
Museumobiles

The "Fossils of Ontario" museumobile visited 50 Ontario communities, including 100 schools, during the year. This museumobile has now visited a total of 183 communities in Ontario and has been seen by over 138,000 people.

During this same year 1976-77, the archaeology museumobile visited 43 communities and had an attendance of over 20,000, while the ethnology museumobile visited federal schools, reserves, and integrated schools in communities near reserves in eight major areas of Ontario, and was attended by over 11,300 people.







Bottom left: Students in Chapleau trace man's first 12,000 years in Ontario in the archaeology museumobile.





Top right: Installation at the Chateau Montebello of "Toiles de Jouy", the opening exhibition of the new museum at Jouy-en-Josas, France. The ROM lent 22 examples of 18th-19th century printed cottons made by the Oberkampf factory which was located in Jouy.

Bottom right: The loan exhibition "Greek and Roman Life in Miniature", organized by the Greek and Roman Department, presented aspects of daily life in the classical world, using objects from the collections. One of the themes illustrated here, dealt with women, children, and domestic life.

Bringing the Museum to the People

Extension to Schools

Several modifications were made in the museumobile programme during the year to integrate it more closely with the overall operations of the Extension Services Department, and especially with its programme of extension services for Ontario schools. Museumobile interpreters are now participating in a "travelling teacher" programme in which artifacts and specimens are brought into the classroom for direct "hands-on" study. This programme was tested in a pilot project with the East York Board of Education last spring. A student evaluation questionnaire was distributed, and 954 were completed and returned. The purpose of the questionnaire was to measure the extent to which students found the programme an enjoyable learning experience. Of the questionnaires returned, only 11% gave a negative response; 21% were neutral and 68% were positive.

The department also participated in a number of workshops for teachers in the Ottawa, Northumberland-Durham, East York, and Leeds-Grenville Boards of Education.

Work was completed on the renovation and circulation of a number of travelling cases for classroom use. A new case, "Historical Archaeology", was also completed last year. Artifacts in the case are skilfully exhibited in settings that convey key principles of the science of archaeology, and notes for teachers and students and a wide variety of documents are included. There is also a unit containing a small collection of 19th-century artifacts suitable for handling by the students. This is a new concept which will add considerably to the impact of the travelling cases as a learning resource in Ontario schools.

New Circulating Exhibitions

"The Confederation Generation", an exhibition of illustrations reproduced from contemporary sources such as *The Canadian Illustrated News*, provides a delightful glimpse of Canada's history. The pictures, mounted on a free-standing panel exhibit system, are enhanced by quotations from contemporary writers. This exhibition opened in April at the Art Gallery of Windsor. A button with the motto "Confederation Lives", a leaflet for the general public, and three student quiz sheets were also produced to complement the show.

One of the most dramatic exhibits completed during the year was a full-sized replica of a fossilized dinosaur, Parasaurolophus. Our "travelling dinosaur" was mounted on a 13' x 12' panel in the Owen Sound Museum in March. Learning resource kits on dinosaurs produced by Education Services were distributed to schools in Grey and Bruce Counties. An audio-visual programme from the Vertebrate Palaeontology gallery at the Museum was adapted for use in 3/4-inch colour video-cassette format as part of a free-standing panel show designed to complement "Parasaurolophus".

Three other new exhibits, "Niagara", "Rural Ontario", and "Inheritance", were also nearing completion by the end of this year.

Circulation of Exhibits

The Extension Services Department continued to circulate several different kinds of exhibits ranging from the small tactile exhibit "Canadian Handweaving Samples" (with French and English labels) designed for study groups, to large exhibits of three-dimensional material displayed in the modular exhibit system designed and produced by Extension Services' designer, John Hillen, in order to provide the proper degree of environmental and physical security for Museum materials on loan to other institutions. The department circulated 11 such

exhibitions to approximately 36 different borrowers across the province from Thunder Bay to the Quebec border, and from Windsor to North Bay, Sudbury, and Sault Ste. Marie.

Operations

The Museum received Outreach grants totalling \$143,000 in 1976-77—a basic grant of \$125,000 plus a supplementary grant of \$18,000.

In December, the Museum became an Associate of the National Museums of Canada, and subsequently received a Core Funding grant of \$185,000, which will permit an expansion of extension services.

There are several other means by which the Museum extends its resources to people beyond Metropolitan Toronto. Photographs, colour slides, and transparencies are made available to a variety of educational agencies. Staff members appear on radio and television, provide public and scholarly lectures, produce a wide variety of publications, and participate in film and video production. For example, last year, the CBC film "Tokens of Possession" was produced as part of Dr. Kenyon's study of Martin Frobisher's visits to Baffin Island 400 years ago. In April 1977 Education Services and the Far Eastern Department cooperated with the Ontario Educational Communications Authority to produce a film on Japanese culture.

Consultation is provided, especially by the Science departments, both to industry and to various ministries and government agencies. Staff members also provide advice and assistance to other museums; for example, Vertebrate Palaeontology responded to requests for advice on conceptual designs from museums in Banff, Calgary, and Daytona Beach, Florida.

Responses to letters and calls of inquiry from people in every walk of life constitute a large-scale daily information service provided by all Museum departments to the general public. The Museum also offers regular free identification service to the general public for a wide variety of artifacts and specimens, including arrowheads, butterflies, and fossils.

All departments in the Education and Communication division, from Publication Services to Museology and Museum Support and Advisory Services, are involved in the dissemination of Museum materials and expertise. Last year Education Services produced a number of learning resources kits for distribution to schools, sent out volunteers to prepare classes in Metro schools for visits to the Museum, and conducted seminars for teachers in several communities across the Province. The Programmes and Public Relations Department arranged for the circulation of the "Gold for the Gods" exhibit to Winnipeg and Montreal. Publication Services filled orders for ROM books from every part of the world. All these are but examples of the many different ways in which the Museum reaches out beyond its walls to the world at large.

Departmental Reports

Curatorial — Art & Archaeology

Office of the Chief Archaeologist A.D. Tushingham, Chief Archaeologist

Economic factors might have been expected to force a severe curtailment of the Museum's archaeological field work during the past year. Fortunately, the slight "recession" in our level of activity has not been a result of economics so much as a natural pause to breathe, to publish, and to take stock of our programme. This happy condition is a direct result of the interest of the Director and the Board of the Museum in maintaining the active research facility which has always been characteristic of the ROM. We are equally indebted to the Canada Council for its continuing support and to the Ministry of Culture and Recreation for its special grant in aid of the project that proved to be our most important and most controversial of the past year — the excavation of an Indian burial ground at Grimsby, Ontario.

Field Projects — Canada

In October 1976 an Indian cemetery was discovered beside the town park of Grimsby in ground scheduled for development. When the report reached the Museum, our staff immediately initiated a rescue operation. Under the direction of Dr. Walter A. Kenyon, a small band of excavators went to work to uncover, record, and study the burials before the bulldozers moved in. Naturally, the excavation, carried out in such an accessible location, aroused much interest; unfortunately it also precipitated a confrontation between the excavators and some Indian peoples, who finally made a "citizen's arrest" of Dr. Kenyon on charges under the Cemeteries Act and the Criminal Code. The work was halted for some months while a small staff remained in Grimsby through one of the coldest and snowiest winters on record to guard the site. In the meantime, negotiations continued between the Museum, several Indian associations, and the staff of the Ministry of Culture and Recreation in an attempt to find a solution. Feelings at times ran high, but even with a "sit-in" in the Museum by the American Indian Movement, tempers rarely boiled over.

Finally, the Chief and Council of the Six Nations Band at Brantford, the Ontario Heritage Foundation, the Ministry of Culture and Recreation, the Ministry of Consumer and Commercial Relations, the Museum, the owner of the property, and the Town of Grimbsy reached an agreement that allowed the work to be resumed and the cemetery cleared. To carry out a dig in temperatures below 0°C called for ingenuity of the highest order, as well as for an unusual degree of patience, endurance, and good humour in Dr. Kenyon and his assistants. There is no doubt that the complete excavation of the Grimsby burial site will provide important new evidence for the documentation of the way of life and culture of the Neutral Indians of southwestern Ontario in the decades before A.D. 1650. Their society was obviously an affluent and equable one, with an active far-flung trade and a strong tradition that ordered the affairs of both the living and the dead.

Other archaeological projects in the province, though less spectacular than the Grimsby project, had their own importance. The second year of the credit course in archaeology prepared for high-school students by the Museum in collaboration with the Metropolitan Toronto and Region Conservation Authority and the school boards of Metropolitan Toronto took place in the summer of 1976. Dr. Peter Storck was responsible for the archaeological excavation of the Seed site in the Boyd Conservation area, with Bryan Snow as his right-hand man; the enthusiastic reception given this programme by the schools of the region suggests that it will soon cease to be a "pilot project". Dr. Kenyon, before

becoming involved with the Grimsby project, made another brief visit to Frobisher Bay to track down more evidence of Martin Frobisher's visits to Baffin Island 400 years ago for his written report and for a CBC film on the subject entitled "Tokens of Possession". Last winter, arrangements were made with Parks Canada and with the Ministry of Culture and Recreation for collaboration on a sonic and TV survey of the Hamilton and Scourge wrecks on the bottom of Lake Ontario, to be carried out by Mr. Ken McMillan under the general supervision of Dr. Peter Sly of the Canada Centre for Inland Waters at Burlington. As before, officials of the St. Lawrence Seaway Authority and the Ontario Provincial Police are collaborating to provide security for the wrecks. The whole programme is under the direction of Dr. Daniel Nelson of St. Catharines with Dr. Tushingham as chairman of the steering committee.

In the summer of 1976 Dr. Storck pursued his studies of early man in Ontario with the excavation of the fluted-point Fisher site near Collingwood. He also carried out survey work near Kincardine on the shores of the glacial Lake Algonquin.

Mr. David Newlands, having completed his excavation of the Egmondville pottery in the spring of 1976, continued his programme of surface exploration and archival studies to identify the potteries of the colonial period in Ontario.

Central and South America

The fourth season of our field project in Belize has been completed. Dr. David M. Pendergast, the director of the excavations at Lamanai on the shores of the New River Lagoon, has been engaged in some preliminary work in the Christian cemetery adjacent to the church built by the Spaniards for their Maya converts in this district, and has also been investigating various structures at the site. The site presents puzzling architectural features and continues to produce quantities of fine pottery and other handsome artifacts which will in time, we hope, document the later stages of Maya civilization in the centuries before the Spanish conquest.

The Museum's Peruvian interests during the past year were largely devoted to the mounting of the major exhibition "Gold for the Gods". Dr. Kent Day, the ROM field director in Peru, worked closely with Dr. Tushingham on the preparation of the catalogue and in supervising many aspects of the exhibition, as well as in lecturing and writing. The Gold show, in and of itself, provided many new insights into the material culture and craftsmanship of the ancient Peruvians.

England and the Middle East

The excavations at Fengate, on the outskirts of Peterborough, England, under the direction of Mr. Francis Pryor, are now in their seventh and final season. This does not mean that the site has surrendered all its secrets; it does mean that no area at present threatened by urban development has been left unexamined, and that the site has yielded enough information to warrant a pause for publication. Mr. Pryor's second Preliminary Report is in the hands of the editors. Only with full publication, however, will the scope and importance of this project for British prehistory from Neolithic to Roman times become fully evident. Mr. Pryor has also completed his manuscript on the Museum's bronzes from early Britain.

The joint Royal Ontario Museum — University of Toronto project at Kommos in Crete, under the direction of Dr. Joseph Shaw of the University's Department of Fine Art, had a successful first season in the summer of 1976. Survey, mapping, and the construction of a small excavation house occupied much of the time, but enough



Excavating at Grimsby in rough winter conditions.

archaeological investigation was accomplished to demonstrate that Minoan structural remains and artifacts were present.

Accounts of field work in Egypt and Iran will be found in the reports of the Egyptian and West Asian departments.

Other Activities

Arising out of the "Gold for the Gods" exhibition, a symposium on pre-Columbian metallurgy was held, in which Drs. Day and Tushingham, members of the conservation staff of the Museum, and Dr. Ursula Franklin and Mrs. Ilke Mutterer of the Department of Metallurgy and Materials Science in the University of Toronto participated. The costs of this study and of the publication which will result have been generously underwritten by The Birks Family Foundation. Another symposium, entitled "New Perspectives in Canadian Archaeology" and sponsored by the Royal Society of Canada, was held at the ROM on October 22 and 23 under the chairmanship of Dr. Tushingham. On March 4 Dr. Tushingham was presented with the civic Award of Merit by the City of Toronto.

A major physical change during the past year was the transfer of our Canadian archaeology collections and staff to a new location on Queen Street, where they now have more space and improved facilities.

Canadiana Department Donald Blake Webster, Curator

Quarterly exhibitions in the Canadiana South Gallery were "100 Years of American Prints" from June to mid-September, 1976, and "Urban Life in Lower Canada" from September to December, followed by "Explorations of the Arctic" from December to mid-March, 1977, and "A Retrospective Exhibition of Owen Staples" from March through June.

Teaching and Lectures

Members of the department taught our annual segment of Fine Art 426 for the University of Toronto. The curator also held an evening course in pottery and chinaware for Fanshawe College, and David Newlands taught an evening course on historical archaeology at Wilfrid Laurier University. In addition, the staff gave more than 70 internal and outside special lectures and television appearances in Ontario. Further afield, David Newlands presented a paper on Ontario potters and potteries at the Northeastern Historical Archaeological conference at Ligonier, Pennyslvania, while the curator conducted a seminar on Quebec French-period archaeological artifacts at the Peabody Museum, Harvard University, and served as a juror for the



David Newlands examines a visitor's pottery during collectors' Open House, November 1976.

National Ceramics Exhibition at the Glenbow-Alberta Institute, Calgary.

Gifts, Purchases, Loans

Gifts of collection objects came from 40 donors, and totalled some 425 items. By far the largest and most important gifts were a collection of early Canadian watercolours from Miss Hilda Reesor, 25 pieces of silver flatware from Mr. G. E. Brown, two superb sketchbooks containing 44 watercolours by W.H.E. Napier, from Mrs. Mary Anne Miller, and a group of Owen Staples watercolours from the Staples family. We also received a bequest of 10 pictures from the estate of W. N. Moorhouse, including seven watercolours by William Armstrong.

Collection purchases, through May, totalled 60 new pieces. Other purchases are pending. Acquisition expenditures this year were \$18,525. Of this, \$7,850 came from the collections allocation, and the rest from other sources.

Library accessions amounted to some 125 books and periodicals, for a total expenditure of \$2,101.97. Of this \$600 was our library purchase allocation, the remainder coming from teaching and Samuel Trust income.

Exhibition loans went to the Ontario Government Protocol Office, the Ontario Ministry of Natural Resources, the Agnes Etherington Art Gallery at Kingston, the Gregory Public Library, the Royal Bank of Canada, The Grange and the Art Gallery of Ontario, the University of Guelph, and the National Gallery, Washington, D.C.

Extension and Outreach

Exhibitions prepared by the department travelled to the Algoma

Arts Festival, the Brant County Museum, the Wellington County Museum, the Hastings County Museum, and Canadore College. In addition, collection material went to Extension Services for subsequent circulation in other exhibitions. One travelling exhibition, "Steam and Sail", was retired after six years of circulation. Two new circulating exhibitions, "Niagara Falls" and "Rural Ontario", were prepared and will begin travelling in mid-1977

Publications and Research

An Introduction to Canadian Historical Archaeology by David Newlands and Claus Breede was published in October by McGraw-Hill Ryerson and has already been adopted as a high-school and university text in both Canada and the United States.

Continuing research includes the curator's project on English-Canadian furniture, the first volume of which is scheduled for publication in 1979; Mrs. Allodi's study and compilation of indigenous Canadian prints and printmakers; and Janet Holmes' sabbatical research on the historical glass industry and its products.

Special Events

Among special events held at the Canadiana Building were a Collectors' Open Night in November, an open evening for Innis College, a fashion show for designs being produced from a new cottage industry in Lunenburg County, N.S., a symposium and lunch for the American Institute of Archaeology, and a reception hosted by Premier William Davis for the Toronto Consular Corps.

Staff

Mrs. Ignatieff goes to full retirement in June 1977, and David Newlands leaves to take up a new post in the Museology Department. Nancy Willson left in April to serve as a coordinator for the new Discovery Room.

Egyptian Department N.B. Millet, Curator

Progress was made during the year with all the department's major projects, and at the same time some important new ones were initiated.

Exhibitions

From March to May the small rotating gallery shared by the Egyptian and West Asian departments was used to display an exhibition sponsored jointly with Toronto's Society for the Study of Egyptian Antiquities. The society has long been involved in compiling a record of Egyptian antiquities and objects of art in private hands in Ontario; this project was so successful, and revealed so much more than had been imagined, that it seemed fitting that some of the finer pieces should be put on public display. The department is grateful to the society's members, notably Mr. Edmund S. Meltzer, Miss Joyce Haynes, and Mr. Robert Evans, for their assistance.

Loans

A loan of archaeological material has been made to the University of Alberta's museum. Another loan went to the Museum of the History of Medicine at the Academy of Medicine of Toronto. Readers of earlier Annual Reports will remember the autopsy in 1974 of the mummy of Nakht, discovered by Dr. Currelly at Deir el-Bahri in 1905. The mummy has now been donated by the ROM to the Academy of Medicine, where it forms the centrepiece of the History of Disease gallery. The autopsy remains a subject of considerable interest to the public as well as to medical groups, and travelling exhibit material describing it has gone to Detroit, Quebec City, and elsewhere.

Teaching

Both Mr. Millet and Mr. Mills continue to teach the Egyptian Archaeology programme in the University of Toronto's Department of Near Eastern Studies, and to do some undergraduate teaching as well. Mr. Millet and Research Assistant Mr. Edmund S. Meltzer taught sessions in the University's increasingly popular Continuing Education course in Egyptian history and culture. Mr. Millet, with the assistance of another Research Assistant, Mr. Ronald J. Leprohon, collaborated with the Education Department in the preparation of an audio-visual teaching kit on ancient Egypt.

Field Work, Research, Publications

Work continued on the preparation for publication of Mr. Millet's excavations at Adda in Egyptian Nubia, with the help of Mrs. Roberta Gilchrist, who has been Research Assistant in the department since January. Mr. Mills' project for the publication of the results of the Ibrim Cemeteries, excavated by the Egypt Exploration Society in 1963, has now been completed, with the help of Mr. Alan Hollett, and the work is going to press this summer.

A new project has been launched this year which puts the department into the field once again. In October, after attending the First International Egyptological Congress in Cairo at the invitation of the Egyptian Government, Mr. Millet and Mr. Mills went on to Khartoum in the Democratic Republic of the Sudan to carry out the first stage of an archaeological survey of a stretch of the Dongola Reach in the Northern Province. They were accompanied by Mr. Alan Hollett, and also by Mr. Khidr Adam Isa, of the Department of Antiquities of the Sudan, the newly appointed Inspector for Dongola. The team spent a month in the Sudan and carried out a survey of selected areas of the east bank of the Nile between El Khandaq and Fakrinkotti. Through the kindness of the Governor of the Northern Province, Es-Sayid Kamil Muhammad Sayid, the expedition was given the use of the motor-launch Tirhaka, which provided it with a mobile base of operations. The aim of the survey was the identification and mapping of sites of all periods in this area of the Nile Valley, where relatively little has been reported in the way of antiquities. At least one more season of work and probably more, will be required to complete the task.

The department continues its support of the Egypt Exploration Society's excavations at Saqqara, the cemetery area of ancient Memphis, where Mr. Geoffrey Martin has succeeded in rediscovering the long-lost tomb of Horemheb, last pharaoh of the Eighteenth Dynasty. Although ultimately buried in royal style in the Valley of the Kings in western Thebes, this ruler had prepared a fine tomb at Saqqara when he was still generalissimo of the army, before he usurped the throne. It is expected that a portion of the finds will come to the Royal Ontario Museum.

Dr. Millet continues his work on the decipherment of Meroitic, the language of the classical culture of the ancient Sudan. Mr. Mills has begun a study project of the oases of Egypt in preparation for a survey trip in Kharga and Dakhla. *The Pottery of Ancient Egypt*, a corpus compiled from published sources by Mr. Allyn L. Kelley, Research Assistant in the Egyptian Department, has been published by the ROM and has attracted favourable comment from professionals and others.

Department of Ethnology Helmuth Fuchs, Curator-in-charge

The department intensified its activities during 1976-77 and enlarged and consolidated its collections. Services to government, to the public, and to Native Peoples were again notably expanded. At the same time, working conditions in the department, storage facilities, and the documentation of our holdings continued to be improved. The department participated in the Ontario Career Action Programme, the Ontario Summer Experience Programme, and the Canada-Mexico Exchange Programme for Young Specialists and Technicians.

Gifts, Purchases, Loans

Twenty donations, comprising 195 items from North America, Indonesia, Eurasia, and South America, were accepted by the department.

The 179 items acquired by purchase continued to reflect the growing interest in North American Indian artifacts. They included contemporary North American Indian paintings by James Simon and Del Ashkewe, Ojibwa quillwork and weaving, and Eskimo artifacts. Other ethnographic material purchased represented areas in Africa and Central and South America.

Thirty-two loans comprising 771 items were extended to various institutions, art galleries, libraries, museum centres, and associations during this fiscal year.

The collections were increasingly used by universities for research and as an aid in teaching. During the year, 23 students from the Department of Visual Arts at York University and 10 students from the Department of Anthropology at Trent University did research in the department. Other universities and museums throughout Canada also made extensive use of our resources.

The department gratefully acknowledges donations, grants, or bequests from: Mr. Alan Baigent, Mrs. Mercedes Chacin de Fuchs, Mr. Daniel Murphy, Mrs. Rosamund Campbell, Richard Ivey Foundation, Dr. J.T. Petryshyn, Mrs. Norma Hill, Mr. Alan McClelland, Mrs. Nora Priverts, Mr. R.B. Young, the Members' Committee of the ROM, Mr. A.W. Stevens, Mr. Sam Sarick, Mr. Avrom Isaacs, Mrs. Helen Rogerson, Mrs. Katherine Jacobs, Mr. and Mrs. Tulli, Mrs. B. Fullerton, Mrs. J. Eadie, Mr. J. Rintoul.

Galleries and Care of Collections

Following the postponement of the planned Plains Gallery, a temporary exhibits gallery was installed. Temporary exhibits prepared for this gallery included: "Contemporary Native Art of Canada — The Woodland Indians", September to December



The opening of "Contemporary Native Art—the Woodland Indians", August 30, 1976.

1976; "Contemporary Native Art of Canada — The Western Subarctic", January to March 1977; "The Native Peoples of North America portrayed by E.S. Curtis", April to May 1977; and "Contemporary Native Art of Canada — Silk Screens from Triple K Co-operative, Red Lake, Ontario", May to July 1977. Each of the "Contemporary Native Art of Canada" exhibits is documented in an illustrated booklet. The department also organized the exhibition, "Paul Kane and the Native Peoples" in Exhibition Hall from January to March 1977.

A new 8,737-cubic-foot storage area, with humidity and temperature control, was constructed for about 17,000 items in our collections. For this we are indebted to Mr. Sam Sarick.

Lectures, Teaching, Appointments

Mr. Basil Johnston taught two Ojibwa language courses to adults and conducted an Ojibwa language class for Grades 5 and 6 at the Wandering Spirit Survival School. He attended five major conferences and delivered numerous lectures at schools and universities and at professional development days for teachers throughout the province.

Miss Mary Fitz-Gibbon regularly visited the Queen Street Mental Health Centre to present a successful combination of lectures, films, and artifacts to the patients.

Dr. E.S. Rogers taught two courses at McMaster University and served on two graduate committees there. He chaired the Site Visiting Team for Mercury Research for the Ministry of Health and Welfare; served on a committee for the Ministry of Natural Resources to hire an ethnohistorian; and presented a brief to the Attorney-General's office about land use by Native People.

Dr. Fuchs taught a course at York University. He continued to serve as vice-secretary of the International Congress on Human Ecology, vice-president of the Mexico-Canada Cultural Association, and corresponding member for Ethnology Museums

in Canada at the International Council of Museums. He lectured at the University of Western Ontario, to a private citizens' group in Peterborough, Ontario, and at the meeting of the Northeastern Anthropological Association in Providence, R.I.

Field Work, Research, Publications

In November and December 1976, Dr. Fuchs did field work. Dr. E.S. Rogers and Dr. Mary Black continued their ethnohistorical research and obtained permission to pursue this research in the National Archives in Ottawa and the Hudson's Bay Company Archives in Winnipeg. Dr. Rogers co-authored several articles published in professional journals.

Mr. Basil H. Johnston's book entitled *Ojibway Heritage* was published during the year. Mr. Johnston also contributed the first chapter of a book entitled *Discovering Our Heritage*. He continued to enlarge the tape collection and has produced a series of Ojibway language tapes at the request of the Solicitor-General, as well as 70 taped hours of Ojibwa legends.

Dr. Zdenka Volavkova, assisted by her student, completed the detailed scientific cataloguing of our African holdings comprising over 15,000 specimens.

European Department H.A. Hickl-Szabo, Curator

Research, lectures and teaching, gallery work, and extension activities kept all members of the department busy during the year.

Research

The main subjects of Mr. Hickl -Szabo's research were Central European furniture, portrait miniatures, and bronzes. Mrs. Bacso completed her research on the Museum's collection of knives and forks, and worked on the Continental and English glass prior to 1800 in preparation for the exhibition of glass that opens in the fall. Mr. Cselenyi completed his studies of the contribution of the R.S. Williams family to music in Canada, of two Siculo-Campanian Romanesque capitals, and of a drawing attributed to Rembrandt (see Rotunda, Vol. 10, No. 2, Summer 1977). His work on late Byzantine glass paste and steatite pendants continues, and he has begun research on an 18th-century pendant reliquary. Mr. Keeble collaborated with the curator in the work on bronzes and also researched arms and armour, terracotta reliefs and other sculpture, stained glass, and costume. Mr. Kaellgren also collaborated in one of the curator's areas of research — portrait miniatures. Otherwise, his chief concern during the year has been with glass, in preparation for the forthcoming exhibition.

Lectures and Teaching

Mr. Hickl-Szabo and Mrs. Bacso shared responsibility for teaching the University of Toronto's course FA422, and Mr. Keeble also gave three lectures for the course. A great many other lectures were given by the department's staff, both inside and outside the Museum.

Mr. Cselenyi tutored two M.A. students in the museology course, and gave consultations on musical matters. Mr. Kaellgren gave a course on antiques, and Mr. Musselwhite courses on antiques and photography.



Centre medallion, showing Venus and Adonis, from oval gold-and-enamel snuff-box, Paris, 1773. Gift of Tip Top Remaco Ltd.

Gallery Work

Some work was done in galleries 5, 7, and 9, and changes were made in others, while the Ceramic Study Room was rearranged to accommodate student seminars.

Mrs. Bacso planned the late 18th-century English bedroom now being installed in Gallery 12, and maintained a steady flow of changes in the cases in the English galleries. Mr. Cselenyi inaugurated a rotating display of the most interesting and valuable works in the graphics collection. Selected pieces from a great collection of modern art glass lent by Mr. Joseph Markovic of Quality Crystals Ltd. were displayed in the cases in the cafeteria.

Exhibitions, Loans, Other Activities

The department's model of the Globe Theatre has been lent to the Festival Theatre at Stratford for the summer, and after that to Stratford Central Secondary School for the winter. Nine objects from the department were lent to the "Gemstones" exhibition at the National Museum of Natural Sciences in Ottawa. Illuminated manuscript sheets were lent to Western and McMaster universities.

Mr. Keeble worked with the Ontario Museum Association as editor of its newsletter, and gave assistance to the Department of Art at Brown University, Providence, R.I., in preparing an important exhibition. He also served on a number of ROM committees.

At the Corning Glass Seminar, Mr. Kaellgren was awarded a fellowship for work on glass.

Acquisitions

Among notable gifts to the department during the year were a piano by Ronisch of Leipzig, 1895, from Mrs. Frank Price and family; a bronze bull from Mr. Hickl-Szabo; an Art Deco table and a collection of ceramics and glass from Mrs. Saul Silverman; a collection of English 18th-century sauceboats from Mr. Norman Bell; two fine bronzes and a relief of the Holy Family from Mr. Ian Ross; and an important bronze group from Tip Top Remaco Ltd. Outstanding purchases include a fine Rosenthal porcelain covered vase, a portrait miniature by John Smart, two fine Czech glass sculptures signed Klinger, and two modern pieces of Steuben glass.

Far Eastern Department Doris J. Dohrenwend

A major event of the year was the appointment of the department's curator-in-charge, Dr. Hsio-yen Shih, to the directorship of the National Gallery in Ottawa. The task of finding a replacement of her scholarly attainments, creative calibre, and international reputation constitutes a formidable challenge.

Collections and Galleries

Most of the work on the collections in the past year has been determined by public demand and current staff interests. These have directed it into the fields of Chinese Sung and Yüan ceramics, Chinese glass and jade, later lacquerware and pewter from China, Chinese oracle bones, coins and epigraphy, and

Japanese prints. Small but regularly rotated exhibits of *ukiyo*-e prints have been mounted in Gallery XX. Chinese painting displays are changed about four times a year. An important small group of Ban Chiang (Thai Bronze Age) artifacts can now be seen, and a selection of the ever popular Chinese snuff bottles is again on view. The major transformation has been effected by Mrs. Proctor and the Design Department in the Sung ceramics gallery. Opened to the public in December and completed in May, the Sung gallery sets another standard in terms of scholarship and design.

Gifts and Bequests, Purchases, Loans Received

Gifts and bequests amounted to more than 130 items, two of them given to commemorate the curatorship of Dr. Hsio-yen Shih. The majority of gifts were of Chinese ceramics, pewter, and snuff bottles. A rare addition to the small South Asian collections was a gift of two Mughal miniature paintings from India (from a 16th-century Baburnama), while the Tibetan collection was augmented by an anonymous gift of a fine silver mandala and portable shrine. Loans to the collection included major works of South Asian sculpture and Chinese and Mughal style jades. Besides the early Thai material, the department purchased a K'ang-hsi celadon censer, a 19th-century Indian miniature painting, an album of 18th-century Japanese paintings, and a fine 14th-century Japanese wood Jizo.

Exhibitions and Special Events

The department contributed to the splendid show "In the Presence of the Dragon Throne", and to the display of Ch'ing Dynasty decorative arts in the Museum's outside cases. Mrs. Irwin had the main responsibility for two exhibits mounted in our own third-floor galleries: "In the Presence of the Past", portraits of Chinese and Manchu dignitaries, and "The Dragon in the East".

Special events for the year included a six-session colloquium on Japanese prehistory offered to staff and students by Dr. Henry Stewart (working this year at the University of Toronto).

Extension Work

The size and renown of the departmental collections have made it a national and international resource constantly tapped for loans, lectures, and information of all kinds. This year we assembled for Education Services a teaching kit on China which included slides, objects, and background information.

We loaned 35 objects to Extension Services for a Museology exercise in small exhibit design, and extended previous loans for two travelling cases. We are frequently called on for Asian material for the use of the Saturday Morning Club, and our secretary, Melita Scheffel, participated in Saturday morning sessions, while continuing her work for the Canadian Genmological Association. Loans to the Chinese Buddhist Temple of Vancouver and to Holy Blossom Temple in Toronto were renewed.

Other items were loaned to the Natural Sciences Museum of the National Museums for its travelling "Gemstones" exhibition, to the Art Gallery of Greater Victoria's "Mokuhan" show, to the China House Gallery in New York for the first exhibition of Chinese miniatures, and to scholars for study and research.

All curatorial staff are members of Extension Services' new Speakers' Bureau. Tom Quirk worked intensively on an OECA pilot film on Japan and the ROM, and also lectured to the FOROM and other groups on Japanese art.



Silver mandala, three rings and finial held in place by offering of rice. Tibet, c. 1900.

Research and Publications

In January Dr. Dohrenwend submitted her research on the ROM's Chinese glass for inclusion in a handbook on the Museum's glass collections. Mrs. Proctor has nearly completed her work on the Sung and Yüan Dynasty Chinese finewares. Dr. Hsu's second volume on the Menzies collection of Chinese Shang Dynasty oracle bones has been published. His work on textual sources for early Chinese metallurgy with Dr. Ursula Franklin for the great Needham series, *Science and Civilisation in China*, is all but completed. Mr. Quirk worked on Japanese prints and paintings in the collection, while Mrs. Irwin, Senior Technician, worked on later Chinese laquerware (with Mrs. G.G.R. Harris) and on a gift of Chinese pewter, as well as on the exhibitions.

Staff Changes

The departure of Mrs. Barbara Stephen from the department in July 1976 to become full-time Associate Director of the ROM, the appointment of Dr. Hsio-yen Shih to the directorship of the National Gallery of Canada in Ottawa from February 1, and Mrs. Proctor's leave-of-absence this summer prompted a review of the department's staffing needs. A search committee was struck to find a replacement for one of the two senior members who have left the department. Dr. N.B. Millet, Curator of the Egyptian Department, was designated trustee of the department from January 17. At Dr. Millet's request Dr. Doris Dohrenwend served as Interim Head from January 17 through April, and was succeeded in that position by Mr. Thomas Quirk.

Public and Museum Service

Dr. Shih completed her University of Toronto seminar on Chinese Buddhist sculpture, worked with two SEED students, and continued to supervise an M.A. student. Dr. Dohrenwend, also under

cross-appointment to the University of Toronto's Department of East Asian Studies, had the major responsibility for the introductory course to the Arts of East Asia. Dr. Shih gave a paper on "Concepts of Slave Society in China" for a conference sponsored by the Joint Centre for Modern East Asian Studies. In all, 18 lectures, gallery talks, and collections study sessions were given by members of the department. Mrs. Proctor has served on five Museum committees, Dr. Shih on two, and Dr. Dohrenwend on one.

More than 330 people were seen in our Wednesday afternoon identification sessions and well over 1,000 objects were dealt with. We responded to innumerable requests for information, for Xeroxes of library items, and for photographs. Mrs. Parker catalogued over 3,500 slides. About 50 visitors were served in various other ways.

The Far Eastern Library

Accessions this year comprised 142 volumes of periodicals, 313 books, and 93 pamphlets. Holdings now stand at 16,645 volumes. Loans to ROM staff, University staff, and students totalled 1,012. Two magnificent catalogues of Sung porcelains and paintings were purchased with funds donated by the Bishop White Committee, and funds for the purchase of books were received from Dr. J.S. Laughton and Mr. H. Sutherland, Q.C.

The voluntary work of the Bishop White Committee on three lecture series and the highly successful Chinese banquet of April 20 again contributed on many levels to both the Far Eastern Department and the Library.

objects from the collections supplemented by photographs and graphics.

Extension Activities

The second tour of the loan exhibition "Greek and Roman Life in Miniature", organized from objects in the collections, went to the MacKenzie Art Gallery at Trent University, where Mrs. Leipen lectured on Greek and Roman daily life, and to the Museum of Anthropology at the University of British Columbia, where she was invited to open the exhibition. Mrs. Leipen also acted as consultant to UBC's Department of Classics on some of its recent accessions and lectured on "Athena Parthenos by Phidias — reconstructing a vanished statue".

Field Work and Research

Dr. J. Shaw conducted the first of five projected seasons of the University of Toronto — ROM excavation at the Minoan site of Kommos in Crete. During the summer, Dr. J. Hayes worked on the pottery finds at Kommos, the Dumbarton Oaks excavation at Istanbul, and the ROM's Fengate site in England. He also continued his study of our collection of ancient lamps. Mrs. Leipen concentrated on the collections of Greek and Roman sculpture in preparation for their publication. Mrs. Easson worked on the numismatic collections and catalogued the Byzantine coins. Dr. J. S. Wilkinson studied the extensive collection of late Roman bronze coins. Drs. R. S. Bagnall and A. E. Samuel completed their study of the Greek ostraka from Egypt with publication of Ostraka in the Royal Ontario Museum II, dedicated to Mrs. Easson, who has collaborated with the authors since the beginning of the project.

Greek and Roman Department Neda Leipen, Curator

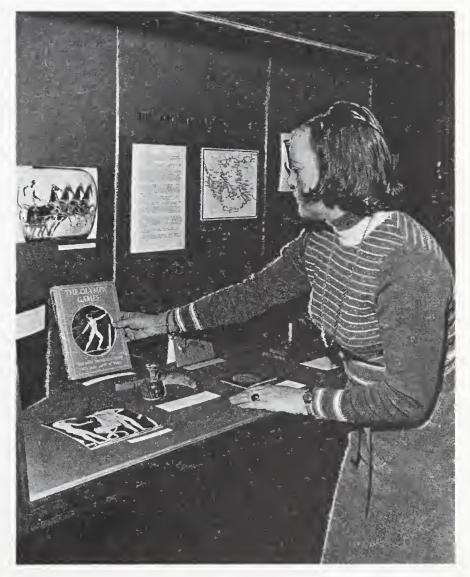
The department's major task in the last year has been to acquaint the public and the scholarly community with the resources of the Greek and Roman collections. The loan exhibition "Greek and Roman Life in Miniature" toured for the second year, and numerous lectures were given within and beyond the Museum.

Collections, Galleries, Exhibitions

The collections were enlarged by the generous donation of a Byzantine lamp and a painted jar by Mr. H.H. Hinton in memory of Mary Jackson Hinton. A gift of 124 slides from Mrs. D. Hoover constituted a valuable contribution to the departmental slide library. The purchase of a fine Roman silver *trulla* (wine scoop) increased the collection of elegant ancient table ware. Also purchased were two Roman signet rings and a gold solidus of the Roman emperor Constantius II (A.D. 337-361).

The collections were intensively studied by Dr. E. Christiansen (Denmark), Prof. C.M. Robertson (England), Mlle A. Caubet (France), and Dr. C. Boehringer, Prof. K. Brommer, and Dr. K. Fittschen (Germany). Gallery maintenance included refurbishing the display on ancient Greek painting in the Athens Gallery.

To mark the 1976 Olympic Games at Montreal, Mrs. A. Easson organized the exhibit "The Ancient Olympic Games", using



Alison Easson arranges a special exhibit on the ancient Olympic Games.

Public and Museum Service

During the year the staff identified more than 325 artifacts for the public.

Mrs. Leipen was cross-appointed to the graduate faculty of the Department of History of Art, University of Toronto, and gave a graduate course on classical Greek sculpture (FAH 2010) utilizing the Museum's collections. She also served on the examining committee of a candidate for the Phil. M. degree. She has been invited to be chairman of the Canadian committee for the international *Corpus* of *Etruscan Mirrors*. Dr. Hayes was cross-appointed to the University of Guelph and taught an undergraduate course on Roman archaeology.

Mrs. Leipen lectured on aspects of Greek and Roman daily life to the Victoria University Classics Club, Ryerson Polytechnical Institute, and the Museum's FOROM Group. Mrs. Easson took part in the ROM's Gold Lecture Series #2 with "Golden Staters and Silver Drachms". Dr. Wilkinson spoke at conferences on ancient numismatics held in Hamilton and Toronto. Members of the department also gave lectures within the Museum to students from Wilfrid Laurier University and Leaside High School, as well as to the Members' Committee and Education Services, and Mrs. Easson spoke at a Careers Day at C. W. Jefferys Secondary School, Downsview.

Mrs. Leipen, Mrs. Easson, and Dr. Hayes all served on Museum committees, and Mrs. Easson completed her term as chairman of the Art and Archaeology Curatorial Council.

Philately Department Fred Stulberg, Honorary Curator

The practice of having loan exhibits on display in the stamp corner of the Lower Rotunda continued through the year. Included were specialized studies of the "13 cent Quebec Citadel of Canada"; the "Medallion Issue of Canada"; and the "Penny Georgians of Australia". The popularity of last year's "Embroidered Postcards of World War I" made necessary another display of these colourful and interesting hand-embroidered souvenirs of a past era. Another colourful display was seen in the "Stamp Illustrated Postcards of Otmar Zaher". This European printer used the colour illustrations of the stamps of various countries as themes for his products. The Christmas season was marked with a showing of "Early Christmas Seals of Canada".

Through this department, the London Art Gallery obtained a display of postcards as part of "O Canada", an exhibition of paintings, lithographs, prints, sculptures, and other related items showing a Canadian theme. Following its initial showing at London, it went to many of the other galleries in Ontario.

The Honorary Curator presented seven lectures to various philatelic, historical, and service organizations. In addition he was on the jury of 11 stamp exhibitions in Canada and the United States, including the exhibition of the Royal Philatelic Society of Canada at Vancouver. In competition, his collection on the early postal history of York and Toronto was awarded a gold medal and the reserve Grand Award at STAMPEX'77 — Canada's largest annual stamp exhibition.

A liaison was established between this department and the National Postal Museum in Ottawa for the exchange of information.

Through the Heritage Foundation of Ontario the ROM has received a comprehensive collection of the stamps of Russia.

Textile Department John E. Vollmer, Assistant Curator-in-charge

Dorothy K. Burnham, curator, retired at the end of October 1946. She continues her association with the department as a Research Associate.

Collections and Galleries

Gifts from private donors increased the collections by over 400 items, ranging from 16th-century English embroideries to 1976 blue jeans. Sixty purchases improved the holdings of early silk weaving and ethnographical collections from South and Central America and from Central Asia.

Textile displays in galleries throughout the building were rotated, and 10 special exhibitions were organized by the department. Programmes of storage maintenance and archival reference for the over 20,000 items in the collections continued.

Exhibitions and Special Events

Most of the activities of the department were directed toward the organization, preparation, and mounting of two major exhibitions: "In the Presence of the Dragon Throne, Chinese Costume of the Ch'ing Dynasty (1644-1911)" and "Mediaeval Textiles from the Mediterranean World". Two complementary exhibitions were mounted for "Gold for the Gods": "From Loom to Tomb" (pre-Columbian textiles) and "Costume of the Andes" (ethnographical material). "In the Presence of the Past" (commemorative Chinese portraits), "East Asian Costume Technology", and "Faces of Old China" (photographs from the ROM archives) complemented the Chinese costume show. Other exhibitions included: "Felt Making", "Tunisian Rugs, recent gift of Dr. Michael Pflug", and "American Costume 1876-1976". Mrs. Holford completed a new permanent lace exhibit in the Costume Gallery.

Special events included a lecture series to support the Chinese costume exhibition and a colloquium on "Mediaeval Textiles from the Mediterranean World", which coincided with annual meetings of the Mediaeval Academy of America.

Loans

The department arranged nine loans involving 46 items from the collections. Five of these loans were made within the province, two were made to other Canadian institutions, and one to the Fashion Institute of New York. The ninth was a major loan of printed French fabrics sent to honour the opening of the municipal museum in Jouy-en-Josas near Paris.

Field Work, Research, Publications

Dr. Gervers recorded and studied a private collection of early Egyptian material. She did extensive editorial work for the



Mr. G.D. de S. Wotherspoon, Chairman of the Board of Trustees, holds a bamboo pole with a red string, an envelope containing money, and a piece of lettuce which he feeds to the lion on the steps of the Museum at the opening of "In the Presence of the Dragon Throne", April 18, 1977.

Burnham memorial volume, organized several exhibitions, and prepared invited papers on Turkish influence in Balkan textiles for a colloquium at the University of Michigan, and on mediaeval Mediterranean garment types for the colloquium on "Mediaeval Textiles from the Mediterranean World" at the ROM.

Mr. Vollmer concentrated on Chinese costume research, wrote the handbook to accompany the exhibition, and prepared three other articles on the subject. He also prepared a paper dealing with archaeological evidence for weaving in China for the Irene Emery Roundtable Talks on Textiles at the Textile Museum in Washington D.C., and continued his work on Chinese rugs.

Mrs. Holford focused on 18th-century European garment technology in preparation for a publication on the Toronto collection.

Public and Museum Service

All curatorial staff taught at Ryerson Polytechnical Institute. Mr. Vollmer lectured at the University of Toronto and to students of the Ontario College of Art, Georgian College, and the Sheridan School of Design. Dr. Gervers taught two full courses on mediaeval art at Scarborough College and supervised three independent students from the University of Toronto.

Over 500 visitors consulted the department and collection personally, and over 1,500 enquiries by telephone and mail were answered by the curatorial staff.

The curators served on several important museum and curatorial committees.

Endowment Fund

The Textile Endowment Fund Committee with Mrs. William Harris in the chair completed several successful projects: an autumn lecture series on Oriental rugs prepared and given by Dr. Gervers and Mr. Vollmer; a dinner party celebrating the exhibition "In the Presence of the Dragon Throne", together with the Bishop White Committee; several outside lectures under the aegis of the Speakers' Bureau; and a needlepoint project which will be the focus of fund-raising next year.

West Asian Department

Louis D. Levine, Associate Curator-in-charge

A date in mid-September 1976 marked a major occasion for the West Asian Department. For the first time in over two years, the entire departmental staff was together at the same time in our offices in the Canadiana building. In June, Dr. Levine had returned from his sabbatical leave, and the return of Dr. Keall and Mr. Pratt from a highly successful season of excavation at the Parthian site of Qal'eh-i Yazdigird brought the contingent up to full strength.

Field Work

The third season of excavation at Qal'eh-i Yazdigird in western Iran produced a series of stuccoes that have revolutionized our idea of early Persian art. These were found in the building that Dr. Keall had begun to excavate in his second season, a building that seems to be part of a mountain fortress that also served as a Paradise, or park, during the 1st or 2nd century A.D. In addition, Dr. Young spent one month in the field at the invitation of the Iranian government, restoring parts of the excavations at Godin Tepe and checking out details for the final publication of the site. These field-work programmes were the core of the department's activities, producing new information for the world of scholarship and for the Museum's public.

Teaching, Lectures, Publications

The department's service to the public takes a very wide variety of forms, including lectures, public talks, publications, and classes. Mr. Breede, our chief technician, co-authored a book entitled *Introduction to Canadian Archaeology*, published by McGraw Hill-Ryerson. He also spoke to college audiences at York University and Nipissing University and to school groups in Toronto, and took part in television and radio programmes. All members of the curatorial staff continued to teach regular courses at the University of Toronto, and offered special lectures in other courses. In addition, Dr. Keall and Dr. Golombek delivered public

lectures at the ROM; Dr. Keall appeared on CBLT and CHCH television; Dr. Golombek lectured to school groups; and Dr. Levine lectured to and taught adult education groups and teachers in Toronto.

All of the curators and Mr. Breede delivered papers at meetings of learned societies, including the VIIth International Congress of Iranian Art and Archaeology in Munich, and other meetings in Canada and the USA. Invitations were extended to Dr. Keall to deliver the Kevorkian Lecture on Iranian Archaeology at the University of Pennsylvania, and to Dr. Levine to participate in an advanced seminar on the archaeology of western Iran held at the School of American Research in Santa Fe, New Mexico.

Galleries and Displays

Gallery and display work also received attention during the past year. One of the cases in the Palestine gallery was reinstalled with a display about the Kangavar Valley survey project of Dr. Young. The Rom's newly installed current research case was inaugurated with a display of work at Godin Tepe, and a show entitled "Abracadabra" was displayed in the Museum subway case. In addition, an exhibit of mediaeval textiles from the Mediterranean basin was installed in the rotating gallery. This coincided with the highly successful colloquium, "Mediaeval Textiles in the Mediterranean World", organized by Dr. Golombek and Dr. Gervers of the Textile Department, which drew some 100 international scholars to the ROM for two days of intensive discussion on a wide range of related topics.

Gifts, Purchases, Loans

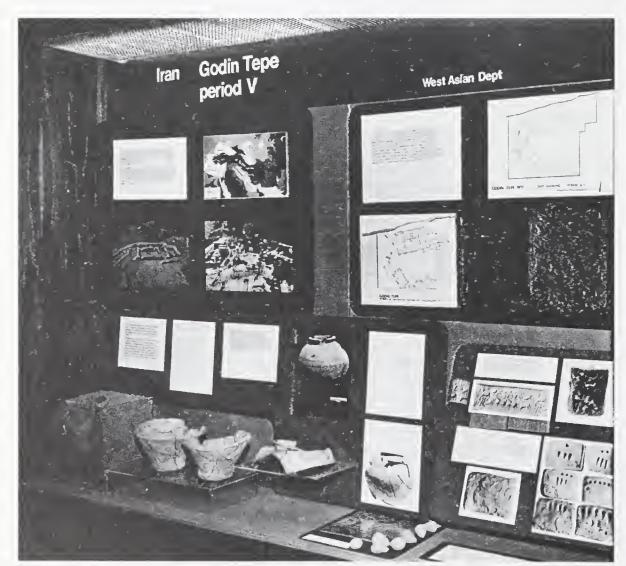
The department's collections continued to grow, but high prices and new legal restraints on the export of materials from the countries of western Asia limited this activity. A glazed tile panel from a 17th-19th century Persian pavilion and a rare Egyptian

tiraz textile fragment constitute the major purchases. A gift by Mrs. P. Graham of eight Mesopotamian cylinder seals and three clay figures, a gift and long-term loan by Mr. F. Minarovich of Islamic metalwork and ceramics, and a long-term loan by Mrs. J. Gordon of a 12th-13th century Persian bronze lamp have all filled gaps in the collections, or supplemented existing material. Some of these new acquisitions have already gone on display. From our own collections, a group of objects, both ancient and modern, was loaned to the Ontario Science Centre, a collection of palaeolithic stone tools was used by Scarborough College, and some samples of ancient bronze were given to the conservation programme at Queen's University for practice analysis by students.

Staff Changes, Museum Service

In January, the headship of the department was assumed by Dr. Levine, complete with a "newly discovered" Old Persian inscription composed specially for the occasion by Dr. Young. Dr. Young continued to serve as the coordinator of the Art and Archaeology departments and on numerous Museum committees, and Dr. Keall assumed the chief editorship of the Art and Archaeology publications committee. Mr. Breede served on a committee dealing with the standardization of registration procedures for the Museum's collection.

Dr. Levine was appointed vice-chairman of the newly established Exhibits Communication Task Force, a group charged with the task of drawing up both policy and plans for all new galleries to be installed in the expanded Museum. The deliberations and recommendation of this committee mark a new departure in setting priorities for and rationalizing the approach to communication through displays in the ROM, and are of particular importance for the Museum's future.



The West Asian Department's display on the excavations at Godin Tepe, in the new "current research" display case.

Department of Botany John L. Riley, Curatorial Assistant

During the past year, a modest expansion and reorganization of the collection space and library materials made it possible to accession into the collection many previously stored materials and to initiate field work to expand the geographical representation of the collection, particularly within Ontario.

Collections

Nearly 10,000 collections of vascular plants have been added to the herbarium in the past year, from a variety of locales: the Northwest Territories (Mackenzie Delta region), the Maritimes, and southern Quebec. However, most of the additions were from Ontario; specifically, Northumberland, Hastings, Peel, Simcoe, Lambton, and Essex counties, some islands of southern Georgian Bay, Metro Toronto, southwestern James Bay, coastal Hudson Bay, and the Hudson Bay lowland interior.

The more than 600 collections of John Macoun and his son James (primarily western Canadian), which were part of the James White collection donated to the herbarium in 1976, have been annotated, catalogued, and discussed in a manuscript detailing the conditions commonly encountered in the Macouns' exploratory botanical work.

Teaching and Public Service

Mrs. D. A. Hoy and Mr. P. M. Catling assembled a permanent display at the Botany Building of the University of Toronto concerning the uses of plant materials, mainly tropical, in beadwork and other ornaments, with special reference to commonly used poisonous seeds. Mrs. Hoy contributed several articles to popular horticultural magazines and was a founding member (and acting chairman) of the Toronto Cacti and Succulent Club, established this spring.

Teaching responsibilities involved the instruction of students of systematics in herbarium techniques, exchange/loan procedures, herbarium reference materials and laboratory equipment, and the collection and maintenance of pickled and dried materials for teaching purposes. In order to decrease damage to the main collection, a small-scale herbarium has been organized for the teaching of undergraduate systematics courses.

Dr. J. E. Cruise and Dr. J. W. Grear continue to supervise graduate students preparing revisions on ladies'-tress orchids, blue-eyed grasses, fireweeds, panic grasses, and sand-cherries of northeastern North America. These and other environmental and physiological researches make use of the ongoing loan and seed exchange programmes.

Field Work and Research

Dr. J. W. Grear has completed his New World monograph on the genus *Rhynchosia* (Fabaceae), which includes more than 60 species and descriptions of more than 10 new taxa. This major revision will be published this summer by the New York Botanical Garden.

Mr. Riley and Mrs. Hoy spent part of July 1976 on a collecting trip north of lakes Huron and Superior, and in the Rainy River and southern Kenora districts. More than 2,000 collections were made (as well as more than 4,000 duplicates for exchange with other herbaria) from a wide range of boreal habitats, concentrating on the arctic/alpine elements of the upper Great Lakes flora. A second Great Lakes location for the subarctic lady-slipper,

Cypripedium passerinum, was discovered near the Pic River on the north shore of Lake Superior. This sand dune area had been surveyed as a campsite development for Pukuskwa National Park, but the discovery of this important disjunct orchid population led to a reconsideration of the park's plans.

In cooperation with provincial and federal government agencies, Mr. Riley spent five weeks collecting specimens and associational data in the Hudson Bay lowlands of northern Ontario. The purpose of the programmes was the classification and process-analysis of interior wetland sites (Kinoje Lake area), and the characterization of species composition and abiotic parameters of coastal, migratory bird habitats. More than 1,600 botanical specimens, as well as duplicate materials, were collected. Mr. Riley has continued to contribute to these programmes by assisting in the compilation of an annotated bibliography of materials relevant to the study of the vegetation and floristics of the Hudson Bay lowlands, and in the establishment of a regional zonation of the lowlands.

Department of Entomology and Invertebrate Zoology

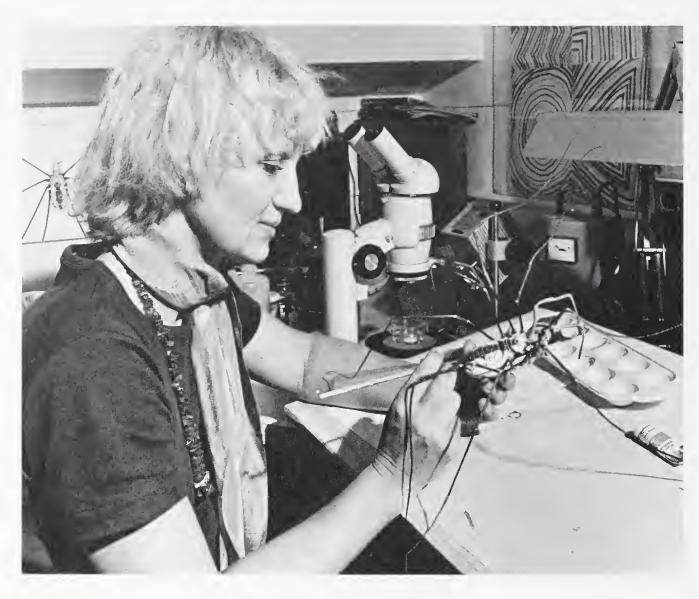
David Barr, Associate Curator-in-charge

This year saw the culmination of several major long-term projects for the department, in particular the appearance in June of Dr. G. B. Wiggins' landmark reference work Larvae of the North American Caddisfly Genera (Trichoptera) and progress to the blueprint stage of plans for a renovated and improved Gallery of Arthropods. It has also been one of the most productive years in some time for exhibit and display activity.

Field Work and Research

Dr. Wiggins and Mr. T. Yamamoto studied and collected the caddisfly fauna of Japan and obtained observations and specimens pertaining to the biology of the Phryganopsychidae. Mr. Yamamoto, Dr. D. Barr, and Mr. B. Marshall led field expeditions in southern Ontario to obtain research material and to contribute to our stepped-up programme to obtain insect specimens for education and display purposes. Dr. Wiggins completed research for his book on larval caddisflies. Assisted by Mr. Yamamoto, he also completed a survey of adult, pupal, and larval caddisflies for a chapter on these insects, with many drawings by Ms. Z. Zichmanis, for the book A Study Guide to Aquatic Insects, edited by K.W. Cummins and R.W. Merritt. Dr. Barr completed the first phase of a three-year study on the swimming behaviour of water mites and submitted two manuscripts for publication on this topic. His description of new mites found in a cold spring in British Columbia was published in the Canadian Journal of Zoology, and he also completed a manuscript on the effectiveness of a new underwater light-trap method for sampling aquatic invertebrates. Ms. Zichmanis prepared drawings of female mites of the genus Arrenurus for Dr. Barr's continuing study.

Mrs. R. Carson spent some time in the field collecting marine specimens for the invertebrate zoology collections. She also prepared a research proposal for a study of the morphology and evolution of Tunicates.



Zile Zichmanis, scientific illustrator, adds the finishing touches to a larger-than-life harvestman model to be used in the new Gallery of Arthropods.

Collections and Galleries

Departmental collections were augmented considerably by staff field work during the year, and notably by new specimens of insect galls collected by Mr. Marshall. A significant collection of Lepidoptera from South America was donated by Mrs. C. Louise Harrington of Toronto, and a representative collection of insect specimens from the Geraldton region of Ontario, notable for the large number of expertly prepared Lepidoptera, was purchased from Mr. Walter Plath. As usual, considerable research material was loaned to scientists in other museums, universities, and research institutions across North America. Under Mrs. Carson's direction, Ms. S. Pasch prepared cross-indexed card files for catalogued sections of the Invertebrate Zoology collections.

Dr. Wiggins chaired the Communications Design Team developing plans for a substantial renovation of the Arthropod Gallery. The design of the new gallery allows it to be moved and installed in whatever area is designated for it in the expanded and renovated Museum. Dr. Wiggins and Dr. Barr contributed extensively to the deliberations of Museum-wide groups planning overall exhibition and communications policy for the future.

Exhibitions and Special Events

During the fall of 1976 the department engaged in intensive activity associated with the joint annual meeting of the Canadian Entomological Society and the Entomological Society of Ontario. Dr. Barr coordinated a special exhibition of paintings and scientific illustrations of insects, entitled "Insect Design", and also prepared a descriptive brochure designed and illustrated by Ms. Zichmanis. Ms. Zichmanis made a major design contribution to the insect exhibit, coordinated by Mr. Yamamoto, which was installed in the Museum subway exhibit area. The exhibit was designed to be capable of travelling and subsequently was displayed at the Canadian National Sportsmen's Show and the

Toronto Dominion Centre. Dr. Wiggins helped organize the entomological meetings and planned as well a Museum showing of *The Hellstrom Chronicle*, an entomological panel discussion, and the annual Photo Salon of the Entomological Society of Canada in the Museum theatre.

Extension Activities

The department's exhibit on insects and spiders prepared for the ROM subway exhibit area was supported financially in part by Extension Services and will eventually be shipped to other parts of the province for display. Dr. Barr served on the Extension Committee and participated in the preparation of a comprehensive set of guidelines and procedures for Museum extension activities. He also prepared interpretive articles for several publications, provided text for the Museum Educolour book on insects illustrated by Julian Mulock, and appeared on several television and radio programmes. Mrs. Carson and Dr. Barr have both prepared talks for the ROM Speakers' Bureau programme.

Staff and Organizational Changes

Drs. Wiggins and Barr exchanged administrative roles as part of the institutional policy of rotating responsibilities at fixed intervals. Dr. Ball left early in the year to take up a position at the University of Amsterdam.

Public and Museum Service

Dr. Barr gave the Advanced Invertebrate Zoology course as well as a summer Entomology course in the University of Toronto, and both he and Dr. Wiggins directed the research of graduate students and served on several examining committees for advanced degrees. All curatorial staff served on committees developing recommendations for Museum policy, Mr. Yamamoto chaired the Science Curators' Council for a second year, and

Dr. Wiggins was a member of a national committee to coordinate a biological survey of the insects of Canada. Dr. Barr, Mr. Yamamoto, and Mrs. Carson gave tours or introductory talks to groups from the Saturday Morning Club, the ROM Guard Training Programme, Museology, the Toronto Public Libraries, the Ontario College of Art, naturalists' organizations, and universities.

Department of Ichthyology and Herpetology

E. J. Crossman, Curator-in-charge

In spite of curatorial absences, the work of the department continued unabated. In the latter part of the year almost all our efforts were engaged in the planning both of our new space in the expanded Museum and of the temporary offsite quarters which we must occupy during the construction.

Collections

The impending double move of the collection caused us to speed up the documentation of uncatalogued material. Dr. R. Winterbottom and Roxanne Hough have worked almost full time on sorting, identifying, and cataloguing.

During the year, 242 general accession lots were handled, and 2,239 lots totalling 40,074 specimens were catalogued. This material included much of the outstanding collections of pelagic larval fishes. In addition, 914 lots of Caribbean reef fishes comprising 4,700 specimens were sorted and prepared for cataloguing.

Thirty loans of specimens of fishes, amphibians, and reptiles were made to institutions in Canada, the United States, and Europe. Sixteen loans were acquired from ten institutions in the United States and Europe.

Among incoming material were the survey collections of Ontario fishes from the Ministry of Natural Resources. These included a collection of small catfishes new to the Ontario fauna. A small collection of English freshwater fishes and fish skeletons was also added. Over 400 specimens of Bolivian amphibians and reptiles were purchased from Mr. Jim Lovisek.

Excess material was given to six institutions for their reference collections.

Twenty groups of professional users visited the department and worked with the collection.

Galleries and Exhibits

Proposed exhibits on Atlantic salmon in Lake Ontario, sound production in fishes, and living light in fishes were carried forward. Also, with the new expanded galleries in mind, the department acquired, through the Nova Scotia Museum of Science, unpainted fibreglass models of a hammerhead shark and an Atlantic halibut.

Extension Activities

Our major activity in the area of extension was the loan of slides and photographs to the media and to government agencies. The staff also gave tours of the department, talks on the function of the ROM, and career counselling.

Dr. W.B. Scott borrowed various display materials for use in public display on Canadian Atlantic fishes to be mounted in the Huntsman Marine Laboratory, St. Andrews, New Brunswick. Dr. Scott also acted as resource person for a ROM Life Science tour of the upper Amazon River and the Galapagos Islands.

Field Work, Research, Publications

Dr. A.R. Emery continued his studies, on the Severn River, of colouration, behaviour, and sound production in several local species of fishes. He also extended his studies of the splake (an important hybrid salmonid sportfish), and of the stability of aquatic ecosystems, and, with the assistance of Mrs. Goodchild, continued his studies of pomacentrid fishes. In June this work carried him into the field to make recordings of sounds and to determine the occurrence of certain species.

Dr. E.J. Crossman, with four students, continued the study of the muskellunge. With Dr. W. Hadley of the State University of New York at Buffalo, he brought to completion a joint study of the fishes and fisheries of the Niagara River, and with Mr. H. Van Meter of the US Fish and Wildlife Service, a study of the fishes occurring in Lake Ontario. While on study leave in Cambridge, England, Dr. Crossman worked on pike studies in the field and in the lab of the Anglian Water Authority.

Dr. Winterbottom continued his researches on the fishes of the family Congrogadidae, and Mr. Jim Lovisek analyzed specimens and data on crocodilians gathered on his research project in Bolivia. Mr. Stan Mazur assisted herpetological research by organizing accumulated literature and records.

Dr. Scott continued his researches into various Canadian Atlantic marine fishes, the revision of his bulletin on those fishes, and a checklist of fishes occurring in the eastern Atlantic. This work resulted in the published description of a species of lantern fish new to science.

In addition to the publications listed elsewhere in this report, research activities resulted also in reviews by Peter Buerschaper of two books on natural history art, a bibliography of the muskellunge by Crossman and Goodchild, an annotated checklist of the fishes of Lake Ontario by Crossman and Van Meter, and a paper on Organic Matrix in Fish communities by Dr. Emery.

Staff and Organizational Changes

Dr. Scott was officially on leave throughout the year, while acting as Director of the Huntsman Marine Laboratory, St. Andrews, New Brunswick. Subsequently he requested and was granted early retirement as of June 30, 1977, in order to retain that post. This closes one phase of Dr. Scott's association with the ROM after 38 years of service. A continued affiliation with the department was assured by his appointment as a Research Associate.

Since Dr. Crossman was on study leave from September 15, 1976, to March 15, 1977, and Dr. Emery was almost totally involved with administration throughout the year, much of the work of directing the activities of the department devolved upon Peter Buerschaper.

Public and Museum Service

Dr. Crossman gave lectures in Peterborough, Toronto, Ann Arbor, and Cambridge, England. Dr. Emery delivered professional lectures in Toronto, Fredericton, N.B. and Ithaca, N.Y., as well as six public lectures. Dr. Scott gave seminars on the biology of lantern fishes at the University of New Brunswick and Mount Allison University. Other members of the department gave lectures and presentations within the Museum.

Dr. Crossman continued as research supervisor for four students at the University of Toronto and as a committee member for six others at various universities. Dr. Emery once again gave the Fisheries section of a Fish and Wildlife course to 100 students in the Faculty of Forestry, University of Toronto. Dr. Scott taught various aspects of marine studies to classes from several eastern Canadian universities at the Huntsman Marine Laboratory.

There were 18 different periods of consultation on professional and popular subjects for individuals and organizations.

Drs. Emery and Crossman served as Governors of the American Society of Ichthyologists and Herpetologists. Dr. Crossman continued in his appointments as Professor, University of Toronto; Adjunct Professor, University of Guelph; Director, Canadian Society of Environmental Biologists; adviser to the Canadian Section of the Great Lakes Fishery Commission; Director, Toronto Anglers' and Hunters' Association; and adviser to the World Records Board of the National Fresh Water Fishing Hall of Fame. He was awarded research grants by the National Research Council, the Canadian National Sportsmen's Show, and the Toronto Anglers' and Hunters' Conservation Fund.

As Science Coordinator, Dr. Emery was a member of the Director's Advisory Committee; he also served on eight other Museum committees. Dr. Crossman acted as Supervisor of Electronic Data Processing for the Laboratory of Analytical Systematics and was a member of three Museum committees. He was also ROM representative on the University of Toronto's Department of Zoology Computer Committee.

Department of Invertebrate Palaeontology

Desmond H. Collins, Curator

Considerable reorganization of departmental activities and responsibilities was necessitated by the Museum expansion planning process, the departure of two long-time staff members, and the expenditure of the NMC cataloguing assistance grant. In spite of this, the year was a highly productive one, particularly in important additions to the collections, in the number of scholarly publications submitted and published (10), in public service consulting, and in outreach activities.

The Collections

Over 7,500 specimens (4,500 microfossils) were added to the collections. Particularly noteworthy were fine collections of crinoids, starfish, trilobites, and eurypterids from the Silurian of Ontario and the Devonian of New York, purchased from James Eckert of St. Catharines and Craig Clement of Grand Island, New

York; a valuable collection of modern shells and shell books donated by John A. Watson of Toronto; two large blocks (one weighing over a ton) of Precambrian algal stromatolites collected from north of Thunder Bay with the help of the Great Lakes Paper Company; two beautiful polished slabs of fossil cephalopod molluscs from the Devonian of Morocco and a third polished slab of fossil snails and clams from the Pliocene of California; and a fine collection of Pliocene molluscs with fluorescent colour patterns obtained by a gift from Robert and Shirley Hoerle of West Palm Beach, Florida, and an exchange with Emily Vokes of New Orleans.

Over 500 specimens were loaned for study to palaeontologists from Canada, the United States, and England. Over 100 more were loaned for teaching purposes during the year, while others were loaned to other provincial institutions, such as the Ontario Department of Mines and the Parks Branch.

Data on most of the collections are now entered on computer tape. The Type Catalogue has been submitted for publication, and printouts on much of the collection should soon be produced.

Gallery Work and Exhibits

Planning for the new gallery continued. A small interim gallery, scheduled to open in late summer 1977, will provide a glimpse of our plans for Expansion. Using a number of new techniques, it will exhibit fossils acquired specifically for the new gallery.

An exhibit entitled "Spectacular Fossils" was set up at the Scarborough Rock and Gem Show. Two other displays, one on fossil cephalopods and the other on trilobites, were exhibited at the Willowdale Rock and Mineral Show.

Field Work and Research

Field work, directed towards planned gallery displays and research, was active and widespread. Notable activities were a five-week visit to the Carboniferous of Atlantic Canada by Dr. von Bitter; three weeks in southern Labrador and Newfoundland by Dr. Collins, Mr. Barnett, and Mr. Rudkin; a week on Manitoulin Island by the same party together with Mr. Wheeler; a week around Thunder Bay by Mr. Barnett and Mr. Rudkin; and three weeks in eastern Australia by Dr. Collins. Local field activities took place in quarries around Port Colborne, Gamebridge, Arkona, Kirkfield, and Lakefield in Ontario and in Sylvania, Ohio.

Dr. Harish Verma continued his study of Jurassic ammonites from Kenya. Dr. William Briggs is spending time in the department studying ostracods.

Publications

Six scholarly works were published during the year. Four are by Dr. von Bitter on conodonts and two by Professor Madeleine Fritz on bryozoa. Four scholarly works by three staff members and three Research Associates were submitted for publication. Three popular articles were published and one more submitted during the year.

A paper by Dr. Collins was given to the 25th International Geological Congress, while two papers by Dr. von Bitter were presented to the North-Central Sectional Meeting of the Geological Society of America.

Staff Changes

Huibert Sabelis, technician in the department for over eight years, resigned in November to move to warmer climes. His enthusiasm, cheerfulness, and remarkable promotional activities are much missed.



Robert Barnett demonstrates the cleaning of a Silurian coral colony for curious young visitors at Open House.

David Rudkin joined the technical staff, and Dr. Rolf Ludvigsen, a palaeontologist at the University of Toronto, was appointed Research Associate.

Public and Museum Service

The department was particularly active in the services it provided this year. Nineteen lectures were given to groups such as the Parks Palaeontological Society, the Toronto Junior Field Naturalists, and the Saturday Morning Club. In addition, Dr. von Bitter presented lecture series in the Geology and Zoology departments of the University of Toronto, and supervised graduate students at the universities of Toronto and Waterloo and at Brock University. Dr. Collins supervised a graduate student at McMaster University of Toronto. Classes from Queen's and Carleton universities visited the department.

More than 325 specimens were identified for the public during the year. Mr. Barnett was particularly active in work connected with the Discovery Room. Public consulting was a busy field of activity. A report on "Techniques for Standardized Objective Description of Fossils", produced under a research contract with the Department of Energy, Mines and Resources, was completed and submitted for publication.

Two contracts with Polargas produced a report on palaeontological sites along the corridor of the proposed natural gas pipeline from the Arctic islands to northwestern Ontario. Dr. von Bitter did consulting work for British Petroleum/Petrocan and for the Geological Survey of Canada.

Expert advice was given in connection with a proposal to quarry the Oriskany Sandstone in southwestern Ontario, and in supporting recommendations to preserve the trilobite locality at Craigleith, Ontario. Advice and specimens were sought by the Ontario Department of Mines for handbooks on two well-known fossiliferous areas of Ontario and for displays at the Sportsmen's Show; and also by the Ontario Parks Branch, to reinforce their request for more funds for the acquisition of important fossil-bearing areas as natural preserves.

Department of Mammalogy R. L. Peterson, Curator-in-charge

The past year has been characterized by an increase in museum activities and by the continuing demands of public service and research.

Collections and Galleries

Forty-five accessions during the year added more than 3,000 specimens to the collection, bringing the total of specimens now housed in the department to approximately 78,850. Field work by staff in July-September in northwestern Ontario resulted in the addition of some 500 mammals. Other significant acquisitions included the R. E. Mumford collection of about 1,700 specimens of small mammals from the Old and New Worlds, notably Japan, China, Africa, South America, and the United States, and a large number of carnivore skulls donated by the Wildlife Research Branch of the Ontario Ministry of Natural Resources. Particularly noteworthy was the acquisition of a partial skull of a deer that may have lived in the Toronto area 20,000-70,000 years ago. The skull, discovered during the excavation of the western extension of the Toronto subway at Islington, may represent a species new to science and is being studied by Drs. Peterson and C.S. Churcher. Other specimens were acquired from such places as Colombia, Kenya, French Guiana, the Sudan, and the Great Slave Lake region of Alberta. Loans of research specimens were made to 13 institutions in Canada, the United States, and overseas.

During the year data from 2,400 specimens were catalogued into the computer storage and retrieval system, bringing the total number of specimens computerized to 12,500.

The Ontario bat and insectivore display was completed in September, and the Ontario rodent case is nearly completed.

Public and Museum Service

Dr. Peterson served on the ROM Exhibits Communication Task Force, and Dr. Tamsitt served on three ROM committees and one



Liliane Lortie with the partial skull and antlers of a fossil deer uncovered during the excavation for the western extension of the Toronto subway system.

in the University of Toronto. Ms. Eger served as Secretary of the ROM Science Curators' Council and on the Fumigation Committee. Dr. Peterson continued to represent the ROM in the Association of Systematics Collections.

Staff of the department coordinated the 1977 ROM life science lecture series "Communication in Animals". Among the speakers was Research Associate Dr. M. Brock Fenton, who spoke on "Echolocation in Bats". Research activities in Ontario and the Caribbean region were displayed to visitors for the ROM Open House in March.

Staff members continued to provide service and leadership to mammalogy and related professions. Dr. Peterson continued to serve as a member of the board of directors and chairman of the Honorary Membership Committee of the American Society of Mammalogists, and Ms. Eger was appointed to the Nomenclature Committee of the society. Dr. Peterson also continued as a director and member of the Executive Committee and chairman of the Animal Care Committee of the Metropolitan Toronto Zoological Society. In May he was elected chairman of the board of that organization. Dr. M. Brock Fenton became editor of *Bat Research News*.

Dr. Peterson continued in his appointment as Professor and Dr. Tamsitt as Associate Professor in the University of Toronto's Department of Zoology, and both again offered the course in mammalogy. Dr. Peterson supervised the studies of four Ph.D. students and served on three Ph.D. examining committees. Dr. Tamsitt served on the supervisory committees of three Ph.D. students. As a Fulbright Latin American Teaching Fellow, Research Associate Dr. Valdivieso was a visiting professor of microbiology at the Javeriana University in Bogotà, Colombia. Curatorial staff refereed manuscripts for scientific journals and gave several public service lectures throughout the year. Dr. Peterson was particularly active with the media this year and appeared on several television programmes.

Field Work, Research, Publications

Under Mr. Nagorsen's direction, field work in 1976 supported by the Canadian National Sportsmen's Show was concentrated in the Fort Frances District of Ontario, the first area to be surveyed in a long-term project to study the mammals of the province. Dr. Peterson was occupied with his chapter on bats for the forthcoming book *Mammals* of *Malagasy* that is being edited by Dr. J. Dorst of the Paris Museum. Considerable progress was made on his manuscript on the systematics of the Old World bats of the genus *Miniopterus*. Dr. Tamsitt continued his research on the bats of Colombia with Dr. Valdivieso and worked with Mr. Nagorsen on a revision of nectar-feeding bats of the genus *Anoura*. Dr. Fenton acquired more field data for his continuing studies of behaviour and feeding habits of African and North American bats.

Further progress was made by Ms. Eger on her studies of the mastiff bat *Molossus molossus*. Her revision of the bats of the genus *Eumops* was completed and was published. With Dr. Peterson, Mr. Nagorsen published data on the bobcat in southern Ontario and, with Dr. Peterson and Ms. Eger, he also published a paper on the chromosomes of African bats. Altogether, curatorial staff and Research Associates were authors of eight publications during the year.

A grant to Dr. Peterson from the Canadian National Sportsmen's Show will support further field research in Ontario, and grants to Drs. Peterson and Tamsitt from the National Research Council of Canada helped finance other research activities.

Department of Mineralogy and Geology

J.A. Mandarino, Curator-in-charge

The outstanding event of the year was the official opening and dedication of the Jack Satterly Geochronology Laboratory in March 1977 by Ontario's Minister of Natural Resources, the Hon. Frank S. Miller, in the presence of a group of distinguished guests. Dr. T.E. Krogh and Dr. P. Nunes are to be congratulated on bringing this important laboratory into operation.

Collections and Galleries

Approximately 400 specimens, acquired by collecting, purchase, exchange, and donations, were registered into the mineral collections. Details of the more important acquisitions may be found in back issues of *Rotunda*. We are grateful to our many kind donors of specimens.

Work has begun on the reorganization of the petrology reference collection that was moved last year to make way for the establishment of the Geochronology Laboratory. Several hundred specimens were added, mainly suites of rocks representing the stratigraphy of the middle and late Pre-cambrian sequences of Ontario. The collection was used extensively by geologists from government and industry for study and reference, and several specimens were loaned for research purposes. The geology galleries continued to be a major educational resource, especially for school groups. Several special groups visited the gallery during the year guided by Dr. S.B. Lumbers, Dr. T.E. Krogh, and Dr. W.M. Tovell.

Exhibitions and Special Events

Two special exhibitions, entitled "Gold" and "Fool's Gold", were held in the Mineral Gallery. A special arrangement was made

with the National Museum of Natural Sciences for the loan of their temporary exhibition entitled "Gemstones", which for seven weeks dazzled admiring visitors in the third-floor Rotunda. We owe our gratutide to the NMNS for its cooperation. Other special events included Open House, a tour of the Mineralogy and Geology galleries by delegates from the Prospectors' course, and a special evening in the gem section and "behind the scenes" for the Canadian Gemmological Association, who were also guests on another occasion at an evening visit to the temporary exhibition "Gemstones".

In conjunction with the Ministry of Natural Resources, Dr. Lumbers and Dr. Krogh prepared an audio-visual display describing the Geochronology Laboratory. The first showing was at the 1977 Prospectors' Convention in Toronto and plans are being made for it to be installed at the front of the Mineral Gallery.

Eight small exhibits were prepared and shown at gem and mineral shows in the United States and Canada.

Field Work, Research, Publications

Through the courtesy of the McKenzie Resources Limited, Mr. Sturman was able to obtain material from the phosphate occurrence in the Yukon Territory to further his study of these minerals with Dr. Mandarino. Descriptions of three more new species have been approved by the International Commission on



The Honourable Frank S. Miller, Minister of Natural Resources for Ontario, (left) and Dr. Jack Satterly (right) at the opening of the Jack Satterly Geochronology Laboratory, March 9, 1977.

New Minerals and Mineral Names. Dr. Mandarino continued his work on the Gladstone-Dale Relations. Mr. Sturman also completed a test copy of a new graphical search method to identify minerals by the x-ray powder diffraction technique. This work was supported by a grant from the joint Committee on Powder Diffraction Standards. Mr. Sturman assisted in the description of two other new species in collaboration with mineralogists at CANMET and the Geological Survey of Canada. Dr. Wicks continued his research on the Serpentine Group of minerals, in particular the selection of suitable crystals for the determination of the structures of lizardite and antigorite, and did further work on the nature of Povlen chrysotile. He is also engaged in a joint project with the Ontario Research Foundation in work on chrysotile from an Australian locality. Dr. Gait started preliminary studies on some calcite pseudomorphs from Newfoundland, an anatase pseudomorph after ilmenite from the Bancroft area, and an unknown mineral from the Republic of South Africa.

Dr. Lumbers spent the summer of 1976 and parts of May and June 1977 in the field continuing his research on the Grenville Geological Province with special reference to the occurrence of alkalic rocks and anorthosite complexes. This research continued to be supported by the Ontario Ministry of Natural Resources. Dr. Lumbers conducted several field trips in the Grenville for interested geologists in government, universities, and industry. He has also been engaged in revising the current maps of the Ontario Grenville Province to be incorporated in a new edition of the Geological Map of Ontario. Dr. Krogh spent part of the summer of 1976 in the field in the Kirkland Lake — Timmins area collecting samples for determining the age sequence of geological events that led to the formation of a large region of the earth's crust almost three billion years ago. He also collected samples in Newfoundland.

Honours and Appointments

Dr. F.J. Wicks, Associate Curator of Mineralogy, and Dr. E.J.W. Whittaker, Reader in Mineralogy at Oxford University, were awarded the 1977 Hawley Medal by the Mineralogical Association of Canada. The award was given for their paper "A reappraisal of the structures of the serpentine minerals", judged to be the best paper published in *The Canadian Mineralogist* in 1975 and 1976.

Dr. Gait continued as president of the Mineral Museums Advisory Council and subscription manager of the Mineralogical Association of *The Canadian Mineralogist*. Dr. Wicks completed his term as membership chairman of the Mineralogical Association of Canada and became a member of the Technical Programme Committee for the Geological Society of America's annual meeting in Toronto 1978, which will be conducted jointly with several other USA and Canadian professional societies.

Public and Museum Service, Publications

All curatorial members of the staff were active as lecturers, inside or outside the Museum, and contributed their time and expertise to the task of answering enquiries and performing identifications for the public. Dr. Krogh counselled several graduate and undergraduate students.

Dr. Lumbers, with Dr. Krogh, presented a paper to the 1977 annual meeting of the Geological Association of Canada, and Dr. Mandarino presented a paper at the 1977 annual meeting of the Mineralogical Association of Canada.

Dr. Gait and Dr. Wicks both served on three Museum committees and Dr. Lumbers on two.

The publications of the department are listed in the bibliography elsewhere in this report.

Geobotany

A collection of 247 pollen reference specimens was purchased that will make an important addition to our collections.

Dr. J.H. McAndrews collected in Ontario, Quebec, and Newfoundland as part of his study of Quaternary vegetation history. He is collaborating with Ms. Manville on muskeg history. He also taught two botany courses at the University of Toronto, gave lectures at the universities of Washington and Waterloo, presented two papers at scientific meetings, and led field trips for outside organizations. He was re-elected to the National Research Council's Associate Committee on Quaternary Research, and served as a Life Sciences editor of ROM publications.

Mrs. Siddiqui and Mr. Fecteau identified Ontario palaeobotanical fossils, and the latter presented a paper at a scientific meeting.

Staff

Dr. A. Davis of the Department of Geography, University of Toronto, and Dr. K.D. Card of the Ministry of Natural Resources were appointed Research Associates in geobotany and geology respectively. Mr. C. Turton and Mr. D. Roberts both of Toronto were appointed Field Associates.

March, following extensive organization by Dr. Barlow and Dr. James.

Loans

Seventy-five loans involving more than 600 specimens were made to other museums, the ROM Members' Committee, artists, universities, theatre and photography groups, naturalists' clubs, and government ministries. Special loans of mounted specimens for display purposes were made to the Canadian National Sportsmen's Show and to the Parks Planning Branch of the Ministry of Natural Resources for a presentation to the Ontario Heritage Foundation.

Field Work, Research, Publications

Most of our research was directed towards the area designated in the department's statement of programmatic intent; the evolution of birds, including its rate, direction, and governing principles. Studies were made of evolutionarily detectable changes in native and introduced populations of passerines; Dr. Barlow worked on European Tree Sparrows and Dr. Baker on House Sparrows and Mynas. Colin Rice ran biochemical assays of tissue extracts of Mynas in the Laboratory of Analytical Systematics to look for evidence of genetic differentiation among isolated populations.

Long-term studies of the systematics of vireos and oystercatchers were continued by Dr. Barlow and Dr. Baker respectively. Dr. James did further research on the evolution of song in Yellow-throated and Solitary Vireos, and embarked on an ambitious study of Ontario breeding bird populations in relation to geography and habitat.

Department of Ornithology Allan J. Baker, Assistant Curator-in-charge

This year has seen major organizational changes, heavy involvement in Museum management and public service, successful field work and collection programmes of provincial, national, and international scope, and some significant acquisitions through gifts and exchanges.

Collections and Galleries

Although the department has a large international collection of specimens, many gaps need to be filled for teaching, display, and research purposes. Almost 6,000 skins and skeletons were registered during the year. Perhaps the most significant acquisition was four kiwis, obtained through an exchange with the National Museum of New Zealand. A large number of seabirds from the Canadian arctic were deposited in the department by consultants working on environmental impact studies. Another large collection, principally of seabirds, shorebirds, and passerines, was obtained from Australia, New Zealand, and Hawaii. Smaller collections of birds from Ontario, New Brunswick, the Yukon, Texas, Venezuela, and England were also acquired. The National Museums of Canada donated six Sandhill Cranes, one of which has been mounted for display in the experimental Discovery Room.

Exhibitions and Special Events

Dr. James prepared an exhibit entitled "Some Birds of Peru" as a supplement to "Gold for the Gods". He also organized a showing of 10 of our paintings from the Allan Brooks collection at the Federation of Ontario Naturalists at Guelph. The department hosted the second annual meeting of Ontario Ornithologists in



Cary Gilmour (left) of the Laboratory of Analytical Systematics and Colin Rice prepare to run biochemical assays of myna tissue proteins.

Dr. Savage researched the faunal composition of archaeological sites as indicated by remains of bones, with particular emphasis on material from middens of Amerind Peoples.

Dr. Baker began a joint study with Dr. C. McGowan of the Department of Vertebrate Palaeontology on the evolution of flightless birds, the first phase concentrating on the recently extinct moas. Of our Research Associates, Rev. Long worked on a monograph on the American Robin; Dr. Peck compiled the 13th annual report of the Ontario Nest Records Scheme and carried out surveys of breeding bird populations in various parts of Ontario; Dr. Rising continued his studies of geographic variation in Savannah Sparrows and hybridization in Orioles; and Dr. Hansell worked on theoretical and empirical aspects of systematic biology. Publications resulting from these studies are listed in the staff bibliography.

Staff and Organizational Changes

After 11 years as head of department, Dr. Barlow handed over this responsibility to Dr. Baker on October 1, 1976. During his tenure Dr. Barlow implemented a vigorous acquisition programme and modernized methods of caring for specimens. He is now concentrating his efforts on publication of extensive field research on vireos. Dr. Baker was appointed Coordinator of Curatorial Service Departments.

Lectures and Teaching

Dr. Baker spoke to both the Toronto Ornithological Club and the Brodie Club on the evolution of oystercatchers. Dr. Barlow gave an address on foraging behaviour of Flycatchers to the American Ornithologists' Union and spoke to Ontario ornithologists about simple songs in the Vireonidae. Dr. James lectured to the Toronto Field Naturalists Club on the behaviour of Solitary Vireos, and on recent changes in the ROM ornithology programmes.

The graduate course Numerical Methods of Classification (Zoology 1040) was taught jointly by Dr. Hansell and Dr. Baker in the Department of Zoology, University of Toronto. Dr. Baker also taught the advanced topic "Tactics of Evolution" in Biology 110. Dr. Barlow taught Systematic Ornithology (Zoology 467/1020) and supervised the research of four graduate students. Dr. Savage again taught a graduate course on faunal archaeo-osteology and an undergraduate course in faunal analysis in the University of Toronto's Department of Anthropology.

Public Service

Dr. Barlow served on the National Science Foundation's workshop on the scientific and educational uses of birds, chaired the Edwards Prize Committee of the Wilson Ornithological Society, and was elected a Fellow of the American Ornithologists' Union. Dr. Baker served on the Edwards Prize Committee, the Advisory Committee to the National Inventory, and the Advisory Panel to the Registration Assistance programme of the National Museums of Canada, and completed his term as senior editor of the ROM Life Sciences publications. Dr. James served as chairman of the Ontario Records Committee. Jim Dick shouldered most of the responsibility for answering scores of enquiries about birds from the public.

McLaughlin Planetarium Thomas R. Clarke, Associate Curator-in-charge

As the McLaughlin Planetarium completed its ninth full year of operation, the two-millionth Star Theatre patron attended the latest of the 52 shows presented in that period. For most of the nine years changes in the Planetarium's staff and facilities have been few. However, this year the rate of change began to accelerate.

In November 1976, Mr. Robert J. Ballantyne, a member of the original staff, left to take up the post of Director of the planetarium of the Manitoba Museum of Man and Nature. Six months later, Mr. William T. Peters, Curatorial Assistant for three years, joined him as his assistant. The experience and contributions of these two will be sorely missed, but the Planetarium is fortunate in being able to find replacements in the persons of Mr. Terry Alden and Mr. Ian McGregor.

Star Theatre Programmes

In the past year two new public shows and two new school programmes were produced. Together with the regular Christmas show and a summer carry-over, these made up the following list of offerings in the Star Theatre: "Space, The Final Frontier" written by Robert J. Ballantyne, "Omens of Disaster" written by Thomas R. Clarke, "The Christmas Star", "New Worlds" written by Thomas R. Clarke and Terry Alden, "Man and Stars" (grades 7 to 10), "Other Worlds" (grades 3 to 6) written by William T. Peters, and "Special Lecture/Demonstration" (grades 11 to 13) by the curatorial staff.

In 1976, 64,733 students and teachers attended the school programmes. In addition, 21 sessions were arranged for over 1,200 university students to complement their course work. On several occasions the special tours and shows were given to teachers as part of orientations and professional development.

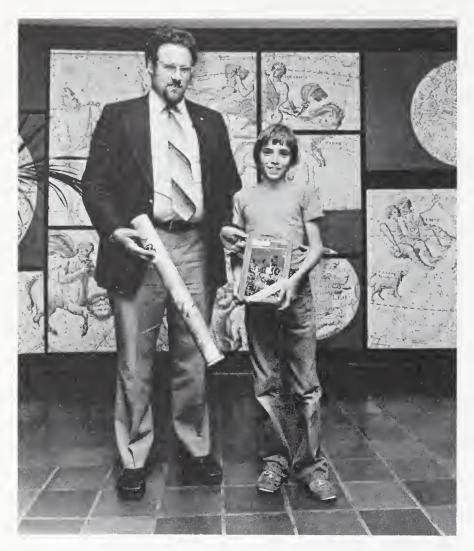
Highlights

Since most staff time and effort is devoted to the production and presentation of Star Theatre shows, it is in this area that the Planetarium counts its main accomplishments. Using NASA footage, a film depicting the accomplishments of Skylab was put together for "Space, the Final Frontier". Because of the success of the film, a shorter version was incorporated into the school shows. For "New Worlds" a similar film was produced to illustrate the development of space exploration. In "Omens of Disaster" a live actor played the part of the Roman philosopher, Seneca, and through the medium of fully masked film spoke to the theatre audience from a projected Roman garden.

In both "Omens of Disaster" and "New Worlds" initial steps were taken to exploit the capabilities of the wide-angle Agalenses, which can project a single image over a large portion of the dome.

Laserium

During the period in January when the Star Theatre was closed for renovations, Laser Images Inc. returned the laser projector equipment to California for refurbishing and modification. Laserium re-opened on February 8 with Laserium II, a completely new show. In 1976, 152,128 people saw Laserium and after two years of operation in the McLaughlin Planetarium total attendance for Laserium performances is approaching 325,000.



Scott Boon of Peterborough, Ontario, the two-millionth visitor to a Star Theatre Show in the McLaughlin Planetarium, with Dr. Thomas Clarke, Associate Curator-in-charge, June 7, 1977.

Maintenance and Development

Several projects initiated in the previous year were brought closer to completion. In July the PDP 11/10 computer was put into operation to control some of the special effects. Improvement in computer programming is continuing, but already it has proved vastly superior to the very limited electro-mechanical system it replaced. The unused potential of the PDP 11/10 will be exploited in the years ahead and arrangements are being made for staff to receive further training in computer technology and programming.

During the extended shut-down in January, two technicians from VEB Zeiss Jena performed a major renovation on the main Planetarium projector by replacing the Sun, Moon, Jupiter, and Saturn projection units with newer models that have greater capabilities.

Research

Dr. King continued to revise material in Geared to the Stars. The typescript and illustrations are now being prepared for costing. Meanwhile, Dr. King also collected information concerning the philosophy of time in preparation for a publication on the subject of time.

Dr. Clarke continued his collaboration with Dr. R. Baecker and Mr. R. Pike of the Computer Systems Research Group of the University of Toronto on a research project in computer graphics funded by the McLaughlin Trust. An operating system for astronomical animation called KEPLER has been developed. Were it not for the fire at the Sir Sanford Fleming building, computer animation would have been included in "New Worlds".

Lecturing and Public Service

H. King, N. Green, W. Peters, and R. Ballantyne between them gave four extension courses: "Introductory Astronomy" (given twice), "Introduction to Observing," "Exploration of the Universe," and "Time". In addition, N. Green, T. Alden, and H. King gave seven addresses to outside groups. Several staff members were involved in radio and television programmes.

The many resources of slide, film, and print materials developed by the Planetarium are in great demand. Films have been loaned to the University of Toronto, Seneca College, and the Royal Astronomical Society, and loans of slides have been made to many organizations and individuals. An unusual use of material loaned by the Planetarium was to help decorate the waiting areas outside the operating theatres in the Sick Children's Hospital.

Tim Clark, Music Producer, has contributed to the audio portion of some ROM Edu-kits, and his music has also been used on one CBC "Man Alive" programme.

Some Star Theatre programmes have been arranged for the Toronto Power Squadron and the Saturday Morning Club. On August 9 all the facilities of the Planetarium were devoted to Astronomy Day, a cooperative effort with the Toronto Centre of the Royal Astronomical Society of Canada.

Department of Vertebrate Palaeontology

Gordon Edmund, Curator

In recognition of the US Bicentennial, a temporary display was prepared on the palaeontological activities of President Thomas Jefferson, featuring replicas of bones which Jefferson had in his White House museum in 1799. This temporary display was replaced by one showing ammonite shells punctured 70 million years ago by the teeth of mosasaurs, swimming reptiles from Alberta. The ammonites were received in exchange for replicated display material intended for an earth sciences museum in Banff, Alberta.

The Collections

A cooperative venture with the Museum of Arts and Sciences, Daytona Beach, Florida, has brought us a fine research collection of the giant ground sloth Eremotherium. In exchange for mounting two of these 12-foot-high skeletons, the ROM will keep much of the remaining material. As an acknowledgment of their contributions to the department's field work in the Daytona Beach area, Steven Hartman, Roger Alexon, and Don Serbousek were appointed Field Associates.

Another large collection of well-catalogued Pleistocene bones was purchased from Field Associates William and Lelia Brayfield of El Jobean, Florida. The total number of specimens added to the catalogue this year was 927.

Field Work and Research

A party of three museum staff members and two students worked for two months in the Cretaceous Kansas Chalk, where they



David Fisk removes rock from the 70-million-year-old fish *Xiphactinus*. Collected in central Kansas, the skeleton of the 11-foot fish is practically complete and will be a major display item in the expanded Museum.

collected about 50 specimens, mainly fish, including several species new to our collections. Intended primarily for forthcoming displays, several of the specimens are large and exciting. The skeleton of the fish *Xiphactinus* is 11 feet long, while the swimming reptile *Tylosaurus* will be about 20 feet long when mounted.

Dr. Chris McGowan and graduate student Jeff Thomason worked during the summer of 1976 with the international team studying the Loch Ness phenomenon, and made further sonar contacts, which confirmed their opinion that the loch is inhabited by large swimming animals. Because of prohibitive costs in staff and equipment, further ROM participation is not anticipated. During the first half of 1977, Dr. McGowan was on sabbatical in New Zealand gathering data for revisionary studies on the moas, giant flightless birds.

Dr. Gordon Edmund continued research on the bones of the giant ground sloth *Eremotherium* at the museum in Daytona Beach, Florida, and at the pit which is still producing the bones. Plans have been made to study the area in detail to determine the age and ecology of the deposit. All the *Eremotherium* bones were brought to Toronto so that research on the articulation of the bones and posture of the animal can be carried out during the mounting of the skeletons.

A number of sites on the Florida Gulf Coast were examined with the help of our Field Associates, and large suites of bones and shells collected for dating. Arrangements were made for an interdepartmental study of the area later in the year.

David Weishampel, under the direction of Dr. Edmund, completed his M.Sc. research explaining the crests on the heads of certain hadrosaurian dinosaurs as signals for the recognition of members of the same species. While rejecting most other explanations, he considered that the crests might also function as sound resonators, perhaps to enhance the mating call.

Dr. Loris Russell, Curator Emeritus, spent six weeks in the Red Deer River valley in central Alberta as part of his research to delimit the Mesozoic-Cenozoic boundary. Two new fossil localities were discovered. He also gave a course on the geological record of evolution in the Department of Geology, University of Toronto.

The publications of members of the department are included in the bibliography later in this report.

Extension Activities

Demands for departmental time, specimens, and graphic materials have increased enormously during the year. Miss Joanne Lindsay collaborated in the production of dinosaur teaching kits, and provided much of the information for a dinosaur colouring book now in preparation. Original sculptures for a new series of dinosaur models to be sold by the Museum were made under the direction of Dr. McGowan.

As part of Festival Ontario, the department provided a full-sized replica of the dinosaur *Parasaurolophus*, as well as graphic display materials including an edited videotape version of our dinosaur mini-theatre programme. Advice on conceptual designs for displays of fossil vertebrates was given to several insitutions, including museums at Calgary and Banff, Alberta, and Daytona Beach, Florida.

The new dinosaur galleries were used several times for the production of educational films and tapes. Most staff members gave several guided lectures in the galleries and demonstrations to various groups "behind the scenes" in the preparation labs. Illustrated lectures were presented to outside audiences, chiefly on the Loch Ness phenomenon (by Dr. McGowan) and on dinosaurs (by Dr. Edmund).

Conservation Department Elizabeth A. Phillimore, Head

The year 1976-77 has been one of many changes in the department. The appointment of Mrs. E. Phillimore, on July 1, 1976, as the new head of the department left the department without a paintings conservator. This lack was remedied on February 1, 1977, when Diane McKay, a recent graduate of the Queen's University Masters Programme in Art Conservation, joined the staff. The department lost a textile conservator on November 1, when Mrs. E. Burnham accepted the position of head of Textile Conservation at the Canadian Conservation Institute in Ottawa. Since her departure, all textile conservation has been carried out by Mrs. I. Block-Bolten.

The physical shape of the department also changed when permission was granted in late 1976 to begin the work of renovating the department's facilities. The process of renovation caused great disruption to the normal flow of work from February to May, but resulted in somewhat improved conditions. Despite the turmoils of staff changes and reorganization, the members of the department treated 420 objects and prepared 4,270 condition reports in 1976-77.

Because the department is concerned with the care of all collections, it has been directly involved in the expansion planning of many of the curatorial departments. Mrs. Phillimore sat on both the Exhibits Communication Task Force and the Departmental Needs Analysis Committee. All members of the Conservation Department worked on the draft of a display policy designed to protect the collections from damage or deterioration in the new wing, and contributed to plans for ensuring that ROM material on loan goes only to places where it will be properly cared for.

Special Projects

The "Gold for the Gods" exhibition, which took place in October, required more than 450 conservation man-hours. All conservators took part in doing condition reports on the more than 450 individual pieces in the exhibition, both when the material arrived and before it left for Winnipeg. Several of the pieces were very fragile and required extensive conservation before they could be displayed. The final stage of the department's involvement came in mid-May when C. Toogood and I. Block-Bolten spent a week in Montreal, the last stop on the exhibition's tour, doing the final condition reports and conservation work on the material before its return to Lima.

I. Block-Bolten spent most of January cleaning, conserving, and mounting a collection of 22 18th-centruy block-printed textiles for exhibition in Jouy, France, while Mrs. G. Moir and E. Phillimore worked on the preparation of the paintings and artifacts for the Paul Kane exhibition.

Both the European and West Asian departments have valuable collections of bound illuminated manuscripts whose conservation needs have never been fully assessed. In late March, the Conservation Department was able to acquire the services of Mrs. B. Stock, a fine book binder and restorer, who spent several weeks examining and writing a report on the works, and making specific recommendations for conservation.

Teaching and Extension Activities

Members of the department are becoming increasingly involved in the the educational work of the Ontario Museum Association,

participating in many conferences and seminars given for those who work in small museums with limited resources. The department participated as usual in the Museology programme and was also involved in ROM-sponsored courses, such as the seminars for the guards and the lectures for senior citizens.

As a result of a proposal made in part by Mrs. Phillimore at the OMA annual meeting last November, both she and S. Wilson have been involved in committees studying ways and means of establishing one or more conservation centres in Ontario to serve smaller museums and art galleries. S. Wilson is serving on the OMA's training committee, and G. Moir on the OMA annual conference committee.



Gillian Moir removes discoloured varnish from the surface of an Oriental lacquer cabinet.

Library

Eugene Wilburn, Head

This was a year of major staff and organizational changes for the ROM Library. Mr. Eugene Wilburn was appointed Head Librarian, Mrs. Vera Pridham was appointed Senior Acquisitions Technician, and Mrs. Myrtle Globensky was appointed Cataloguing Technician. The Library became part of the Curatorial Services division, and the announcement of the Museum expansion programme precipitated full-scale planning activities. We analysed our space requirements and examined our goals and objectives with a view to providing more effective library services in our expanded quarters. As a first step towards future services, we reorganized our loans policies to facilitate internal record-keeping and we reinstituted the Library's annual circulation check and departmental loans inventory.

In mid-April the Library completed arrangements with the University of Toronto Library to join the University's automated Campus Union Catalogue. As part of this venture, Mr. Wilburn worked with representatives of the University of Toronto Library Automation Systems and Council of Campus Libraries to design and implement automation profiles, formats, and terminal procedures for UTLAS Cataloguing Support System operations. This shared Cataloguing Support System allows us to search for cataloguing information in the data bases of the Library of Congress, the British National Bibliography, the National Library of Canada, and the University of Toronto, and our early indications show a success rate of nearly 70 per cent on searches. New Library equipment for use in conjunction with the system includes a VuCom terminal, microfiche reader, and U. of T. microcatalogue. Output products from the system include edit lists, catalogue cards, and acquisitions lists, and the system has enabled us to make a significant reduction in our cataloguing backlog.

Staff Activities

It was an active year for the Library staff in terms of planning, visits, conferences, and special projects. Mrs. Myrtle Globensky studied terminal operations and coding techniques at the



Myrtle Globensky conducts a computer search for cataloguing information for new library acquisitions.

University of Toronto. Mrs. Pat Trunks attended the official opening of the National Museums Library in Ottawa. Mr. Eugene Wilburn attended the Canadian Libraries in the Changing Environment conference and the SLA Budgeting Workshop, both held in Toronto. Ms. Sharon Hick is participating with J.H. McAndrews and R.D. Fecteau of the Museum's Geobotany Laboratory on a project that will produce a *Handbook of Ontario Archaeobotany*. In May she delivered a paper entitled "Archaeobotany — The Published Record" at the annual meeting of the Canadian Archaeological Association in Ottawa. While in Ottawa, she visited several of our exchange partner libraries, and she continues to serve as secretary of the Ontario Archaeological Society. Mrs. Marian Press served as Acting Head Librarian during staff reorganization, and she was responsible for a special project that updated our exchange records.

Registration Department Dorothea Hecken, Head

The outstanding event of the year for the Registration Department was a considerable expansion of its quarters, which has provided all staff members with greatly improved facilities for their separate functions.

A special record office was established to house the centralized card records and all the acquisition files. As a result curatorial staff members can now find any information they require without being disturbed by the other activities of the department. The record office is the responsibility of Mr. James Middleton, a former Assistant Curator of the Halton Region Museum, who has recently been appointed to handle the documentation and recording of Art & Archaeology acquisitions. This newly created position allows a greater concentration on an important area which could not receive full attention in years past because of lack of staff. It also means that the three main functions of the Registration Department are now in the hands of professional staff. In addition to the Acquisitions and Record Section, headed by Mr. Middleton, a Loans Section has been created with the recent appointment of Mrs. Margaret Kolesar as Loans Manager. The third section, dealing with customs and shipping, had been operating under the management of Mrs. Faith Stanley ever since the Royal Ontario Museum separated from the University of Toronto in 1968. Mrs. Stanley, who retired on June 30, 1977, built up the service with great energy and dedication. She will be greatly missed. Her assistant, Mr. Barry McQuade, who came to the Museum a year ago with considerable experience in customs matters, has taken over Mrs. Stanley's position as of July 1, 1977.

Another change took place on March 1, 1977, when Mrs. Sonja Tanner, the Assistant Registrar was appointed to the position of acting head of the Extension Services Department. Mrs. Tanner will return to the Registration Department on August 1.

Departmental Reports

Education & Communication

Education Services Riley E. Moynes, Head

Teaching in the galleries continued to be the main task of Education Services this year. The constant demand for conducted classes at all levels attests to the continuing popularity of this programme, which this year saw over 160,000 students visit the ROM as part of their formal educational programme.

In addition to this activity, the past year has seen the establishment of a number of new programmes.

New Programmes

Education Services assumed partial responsibility this year for two Ryerson Polytechnical Institute courses. Pat Bolland taught History of Costume to senior Design students, while Janis Zibergs conducted a first-year Art History Appreciation course.

The department has begun the production of learning resource materials. The "Gold for the Gods" audio-visual kit was timed to coincide with the special exhibition in the fall of 1976. "The World of Dinosaurs", based on the ROM's collection, was published in March 1977. The first two issues of a quarterly Broadsheet, to be sent free to all Ontario schools with information on Museum programmes and services, have been produced and distributed, as has also "Rambles through Egypt", the first of a series of informative and enjoyable self-guiding activity sheets which will direct weekend and holiday student visitors through the galleries.



An elementary school pupil tries on a coat of mail in the Armour Court under the supervision of ROM teacher Arthur Jamieson.

A Guard Training Course, organized by Education Services and given by curatorial and support services staff, had an average attendance of 16 at each of six sessions.

FOROM, "Friends of the Royal Ontario Museum" (Senior Citizens' Club), and Harold Vanstone, its organizer, came under the wing of Education Services this year. Enrolment was up 50% from last year, reflecting the continued enthusiasm for the club. Activities included behind-the-scenes visits, gallery tours, slide talks, films, outside visits, and presentations by ROM staff and visiting specialists.

Education Services staff have been represented on the Discovery Room Committee, Student Entrance Committee, and new gallery planning committees for Entomology and Invertebrate Palaeontology.

Cooperation with Others in the Field

Several staff members again acted as Associates of the Faculty of Education of the University of Toronto, assisting and evaluating student teachers who chose the Museum as one of their practice-teaching locations.

The Ontario Teachers' Federation and the Museum cooperated to present a three-day workshop "Behind the Scenes at the Royal Ontario Museum". The Museum's representative was Robert Madeley, who has been seconded to Education Services by the Ontario Ministry of Education. He has also organized a number of Professional Activity Day programmes, both in and out of the ROM.

Our pre-visit service, begun last year for the study of Egypt, has been extended to include China. Trained Members' Committee volunteers take slides and a small selection of handling objects to schools that request this service as preparation for a museum visit. One hundred of these visits were made during the past school year.

For the second year, Marilyn Jenkins represented the ROM Education Services at an Archaeological Field School held at the Boyd Conservation Centre (Woodbridge) in August. The 16-day course (offered twice), giving credit in Canadian Studies, was attended by 35 senior secondary-school students from Metro Toronto and York County.

The head of the department served as field supervisor for an OISE student of Adult Education and for a graduate student from Penn State.

Saturday Morning Club

The Saturday Morning Club continued its activities during the 1976-77 season, with a total of 512 young people taking part in the programme.

Regular introductory programmes took new club members to a variety of Museum galleries, and had them involved in activities ranging from sand painting to papier maché dinosaur construction. Programmes were enriched by a chance to visit special ROM exhibits and to work on "Gold for the Gods" activities in the fall and "Paul Kane" projects in the spring semester.

Returning club members chose one of eight different topics for a 10-week semester. A new archaeology group, "Digging Up the Past" was greeted with enthusiasm. Museum archaeologists, conservationists, and other experts worked with the group instructor to develop themes on the "retrieval", "restoration",

and "reconstruction" of the past. Club members in the "Rocks, Minerals, and Fossils" group visited the new geochronology lab and went behind-the-scenes in both palaeontology departments. The "Beasts, Bugs, and Other Things" group visited all the natural science departments with ROM experts, examined beetles, bats, and fish at close quarters, and translated their observations into mobiles and drawings. Native Indian artists helped the "Totem Poles and Peace Pipes" groups, spending time in the "Woodland Indian Art" exhibits in the fall semester. The group followed a rich programme which included beadwork, weaving, and pottery, and a lesson on food. "The Silk Road", a programme which explores the history of East-West cultural exchange, gained popularity amongst club members.

Free Choice Days, when children elect to join a special group for a Saturday, provide a chance for them to meet new faces or experts in a particular field, or to visit a temporary exhibit. A session on felt-making was offered in conjunction with the recent exhibit, and another on Peruvian textile techniques in association with the "Loom to Tomb" exhibition.

mid-July, and the Arthropod gallery is scheduled for construction at the end of August.

Photography, Art, and Audio-Visual

It has been a busy year for the Photography, Art, and Audio-Visual section. The photographic services produced more than 30,000 black-and-white prints, 4,500 black-and-white negatives, and almost 8,000 colour slides and transparencies.

Photographs were provided for three audio-visual kits for Education Services, and for a number of Museum publications, including Gold for the Gods and In the Presence of the Dragon Throne.

The artists provided support for various projects, in particular the Discovery Room. David Pepper was seconded from the selection to work on the international exhibition "Treasure Swords of Japan", which opened at the Ontario Science Centre on June 29.

Exhibit Design Services Lorne E. Render, Head

This year, as part of the move towards expansion, the Exhibit Design Services Department was formed. The amalgamation of the Design, Photography, Art, Audio-Visual, and Carpentry departments provides an opportunity to coordinate various aspects of exhibition planning and development. In addition to these existing functions, the department will be developing others over the next few years, such as exhibit programming, exhibit production, and maintenance and evaluation programmes. The department will thus be able to build a staff with the various skills necessary for dealing logically with exhibitions in the expanded and renovated facilities. If the outstanding collections of the Museum are to have the strong public impact desired, the Exhibit Design Services Department must use all of its resources and have the involvement and participation of all the Museum, in particular the curatorial, education, and conservation members, so that a team approach to gallery development can be realized.

In April, Mr. Lorne E. Render was appointed head of the department. Mr. Render comes to the ROM after nine and a half years at Glenbow-Alberta Institute in Calgary where he was involved in their recent expansion. It is hoped that his experience will be of great value to the ROM through the expansion period ahead.

Gallery Construction

Work on the Sung Gallery, now completed, has turned it into one of the pleasantest and most relaxing galleries on the third floor. Two other projects, the Arthropod gallery and the Discovery Room, were developed and designed. In both cases a Communication Design Team was formed and was given responsibility for the development of the project. In order to bring a broad spectrum of experience to each CDT, members from the Education, Preparators, and Museology departments were included, along with the curatorial members and those from Exhibit Design Services. The Discovery Room is due to open in

Members' Committee Barbara Roberton, Chairman

Twenty years ago, the Members' Committee began with an enthusiastic group of twelve volunteers. It now numbers 125. Although some of the work has changed along with the times and we are entering a new era with new challenges, the purpose of the Members' Committee remains the same — to serve the Board and staff of the ROM as requested, and to encourage public interest in the Museum.

During the summer and early fall, members were working on and preparing for various projects and events. Before the two opening evenings of "Gold for the Gods", 22 members of the committee entertained staff members and invited guests at private dinner parties. In early October a Telerom was held in the Offices of Bell Telephone, when over 1,000 lapsed members of the Museum were personally contacted as a follow-up to a mailing done by the committee in late summer. This was part of the membership drive, which is to be an ongoing project of the Members' Committee. New and returned members were welcomed at a New Members' Night in November with light refreshment and music and a private showing of the "Gold for the Gods". At a similar evening in April, the next group of new members was able to enjoy the "Chinese Robe Show" in all its splendour. In December a Christmas Supper Dance was held in the Armour Court for over 300 members and guests. The 20-foot Christmas Tree, with its handmade decorations representing each curatorial department, once again graced the entrance to the Armour Court.

In March, an Open House called "Behind the Scenes at the ROM" was held to coincide with the reopening of the Museum during evening hours. The event offered a unique opportunity for the members and the public to see those parts and activities of the Museum not normally on view.

Other activities of the committee covered a very wide range. The Geology Bus Trip to the Peterborough area in May, led by Dr. Walter Tovell, was an unqualified success. We were able to help staff the Entomology booth at the Canadian National Sportsmen's

Show and to assist the Public Relations Department with the sorting of tickets from the Gold Show draw. Under the placement programme, members have been working in eight curatorial departments, in such tasks as researching, filing, sorting, and mounting slides, to mention but a few.

The school visiting programme had a most successful year (see Education Services report) and now includes China as well as Egypt in its repertoire. The committee has purchased a projector for this group.

A most important activity of the Members' Committee is arranging and conducting tours of the Museum. In the main Museum building tours are offered twice a day from Monday to Friday; in the Planetarium three times a week; and in the Canadiana building on Wednesdays, making a total of 14 free tours per week. In addition, tours of special exhibitions have been arranged. The Steuben Glass exhibition proved so popular that five additional tours were scheduled. While "Gold for the Gods" was on exhibition, extra tours of the show brought exhibition and gallery tours up to a total of 27 a week. Tours were also arranged for "Paul Kane and the Native Peoples" and "In the Presence of the Dragon Throne". The Touring Committee was invited to join the Speakers' Bureau, and offers a talk under the title, "The ROM and You".

Altogether, approximately 10,000 people were guided by the Touring Committee during the year on the daily public tours. About 6,000 were conducted through "Gold for the Gods".

The Travel Programme Committee continues to be a success. A short trip to Washington in November, including a special visit to the White House, proved very popular. The most ambitious undertaking so far was the trip to the Galapagos and Ecuador in May for 64 participants.

The Textile Endowment Fund Committee sponsored a fall lecture series on Oriental rugs. In the spring, a joint lecture series with the Far Eastern Endowment Fund Committee was coordinated with the Chinese robe show. An ongoing project is a needlepoint rug being worked by the members from a 16th-century sampler in the ROM textile collection. It will eventually be raffled.

Four paintings by the Indian artist, Eleanor Kanasawe, were given to the ROM's Ethnology Department, in memory of Stella Karpus, who was a member of our committee.

To serve the ROM as volunteers in any capacity is a pleasure and a privilege for the Members' Committee. To have been the Committee's chairman has been an honour.

Museology Department W. Hewitt Bayley, Head

The Museology Department, now in its eighth year, is a joint undertaking with the University of Toronto School of Graduate Studies. Students are enrolled in two cognate courses at the graduate level in a department in the School of Graduate Studies specific to their academic specialty. The Museum provides a curriculum over a 15-month period in museological and museographical disciplines. The programme has taken as its mandate: to train students who have demonstrated academic competence in a given field of scholarship related to museums to better utilize that specialty in the service to museums and art galleries in Canada.

The programme during the year has followed the syllabus as approved by the University and the ROM. The Museum provides approximately 140 hours of lectures and seminars between September and June together with various assignments in the practical requirements of museology and museography at the ROM and the Art Gallery of Ontario. Students spend June to September working in other institutions to test and demonstrate their acquired knowledge and skills. The months of October and November, prior to graduation at the Fall Convocation in December, are spent pursuing study and practice under supervision in museum disciplines that require reinforcement as determined by the student's work experience during the summer.

During the year those involved in the Museology programme, past and present, formed a Museology Students Association, registered and partially funded by the University. Two of its members sit on the University of Toronto School of Graduate Studies Review Committee. The purpose of the association is to provide guidance and counsel for students, but above all to set standards of performance and conduct in museum work and museum training.

The department head was invited to consult with and advise the Ghana Museums and Monuments Board about the establishment of a museum training scheme involving the University of Ghana. After detailed site inspections and discussions with the museum and university administrators, reports and feasability studies were submitted. The hospitality and generosity of the Ghana Museums and Monuments Board in Accra and of the University of Ghana at Legon were greatly appreciated.

Three Museology students with specialities in the History of Art Department of the School of Graduate Studies completed with efficiency detailed and comprehensive standard form condition reports of the University College collection of paintings, prints, drawings, and objects. This important contribution was under the direction of the ROM Conservation Department and was funded by a grant under the National Museums Programme for training assistance.

Two gala events of special interest were held during the year. One was a grand farewell party at The Grange given in honour of the department head who is retiring; the other was the Alumni annual party held in the Museology workshop in the Extension Services Department.

Education & Communication

There has been no diminution in the number of applicants for the programme which has remained at approximately the 150 level over the past several years, with about 5% applying for the second time each year. About 15 applicants are accepted for enrolment. The table indicates the numbers of Museology students now employed in various museums and other institutions.

Directors (small museums)	5
Curators	6
Assistant Curators	1
Display Co-ordinators	5
Interior Design Professor	1
Actronomor (Hoad of Dont.)	1
Astronomer (Head of Dept.)	1
Technician (museum)	1
Chief Caster (museum)	1
P/R & Programme (museum)	1
Education & Extension	7
Training Co-ordinator	1
Museum Advisers	5
Researchers	5
University Instructor	4
Writer	2
Museum Administrative Secretary	2
Parks Planner/Interpreter	11
Conservator	3
Assistant Conservator	1
Registrar	1
Policy Officer (Parks)	1
Archives (library)	1
Internships	11
Special Students	4
	11
Writing Theses	7
Advanced Programmes	
Unemployed	_4
Total	103

Ontario Museums Support and Advisory Services

Walter M. Tovell, Head

The Department of Ontario Museums Support and Advisory Services began operation on July 1, 1976. During the year 16 museums and allied institutions in Ontario were visited. Meetings were also held with officials of the Ministry of Culture and Recreation in the Ontario Museum Association. Numerous discussions were also held with representatives of the National Museum of Man and the National Museum of Natural History.

Several interesting projects resulted from the visits to museums. The first of these was the discussions with the mayor of Chatham and members of the Chatham-Kent Museum Board about the feasibility of converting the city hall of Chatham into a museum. The project is still under discussion. A second involved the Hamilton and Region Conservation Authority, which is building an Orientation Centre in the Dundas Valley. A third was an exploration with the Wallaceburg and District Economic Development Commission of the possibility of demarcating an historic trail and building a small museum to house artifacts that have already been collected from the district.

The visits to local museums revealed the unfortunate fact that the security and fire protection services of these museums are not such as would permit the ROM to lend many of the materials that the museums would like to borrow.

In addition to requests for support and advice for direct museum activities, the department also received invitations to attend professional development days, particularly for outdoor education programmes of school boards; to lecture at Festival Ontario activities; and to participate in a field trip on environmental activities.

Dr. Tovell conducted a course for candidates for high school teaching certification in geology at the Faculty of Education, University of Toronto.

Programmes and Public Relations Department

David A. Young, Head

The Department of Exhibitions and Programmes and the Public Relations Department were amalgamated on January 10, 1977, to become the Programmes and Public Relations Department. Mrs. Downie postponed her retirement on request in order to oversee the period of transition as the new department's first head. She retired on February 28 after 25 years of dedicated and productive service both to the ROM and to the wider museum community. A Fellow of the Canadian Museums Association, she also served as a member of the Canadian Committee of the International Council of Museums.

With effect from March 1, David A. Young was appointed head of the joint department. Mr. Young brings to the job eight years of Museum experience in the Education and Visitor Services Development departments, and most recently as the head of Extension Services.

Public Relations

Greater emphasis this year was placed on personal contact with the news media, supplemented by news releases and special days for visits to the Museum by the media. Events covered extensively by press, radio, and TV included the very successful exhibitions "Gold for the Gods," "Steuben: Seventy Years of Glassmaking," and "In the Presence of the Dragon Throne," and the announcement of the intended renovation and expansion of the Museum over the next few years.

The cooperation of the media in supplying publicity for the Museum was vital this year — a year in which admission fees had to be increased and public opening hours reduced in an effort to contain operational costs. We are pleased to report that the news media, almost without exception, have reported extensively and positively on the Museum and its programmes, contributing in no small measure to public attendance. For example, over 140,000 people visited "Gold for the Gods," and more than 80,000 saw "In the Presence of the Dragon Throne," which was held over to August 14.

Exhibitions and Programmes

The department's work in this area is reflected in the "Calendar of Events" later in this Report, and so is not recorded here.

Membership

The net increase in membership this year was over 300, even though the category of family membership had been eliminated. The reason for this increase was a most successful membership drive conducted in the fall of 1976. The campaign began with a letter from Dr. Cruise to members of the Museum in which he asked for their assistance in expanding the membership. The Members' Committee followed this up with a Telerom, a telephone campaign directed to lapsed members of the Museum. The response to both campaigns was excellent. The Museum is indebted to the Members' Committee who devoted so much of their time to the campaign. Because of the large number of requests we have received this year, the Annual Family membership category has been reinstated for the coming year.

Membership Statistics

	1976	1977
Annual Individual	2,908	3,665
Annual Family	415	*
Life	916	927
Fellow	47	48
Sustaining		1**
Benefactor	59	59
Endowment	22	21
Patron	27	25
Founder	_	**
Honorary Life	39	38_
,	4,433	4,784

*This category was removed in 1976.

**These categories were established in 1976.



From the "Gold for the Gods" exhibition: a pair of elbow-length golden gloves with silver fingernails. The gloves were probably mounted over the hands and the arms of a Chimu king at the time of his death. North coast of Peru, Chimu, A.D. 1200-1420.

Publication Services John Campsie, Head

The year 1976 may fairly be regarded as the one in which ROM publishing came of age. During the preceding years the publishing activities of what was then Information Services had become an increasingly self-contained part of the department's operation so that when Publication Services was officially constituted a separate department on July 1, 1976, the step involved little more than making the necessary administrative arrangements to take account of a situation that already existed de facto.

At the same time that the department became independent, it also assumed responsibility for the production of *all* print materials for the Museum. In addition to books, therefore, it now produces some 200-250 other items a year ranging from brochures and posters to printed stationery and forms.

The department's output of publications has nevertheless remained high. Among the year's notable productions were two books published in connection with major exhibitions — *Gold for the Gods*, the catalogue of the show (printed in both English and French editions), and *In the Presence of the Dragon Throne*, the book that accompanied the exhibition of Chinese costume of the Ch'ing Dynasty. Publication of the latter was made possible by generous grants from Simpsons, Limited and Simpson-Sears Limited.

Another major publication was Volume II (the text) of Dr. C.H. Hsu's The Menzies Collection of Shang Dynasty Oracle Bones, which has been many years in preparation. Meanwhile, production of the Harold Burnham memorial volume Studies in Textile History, edited by Dr. Veronika Gervers, has moved steadily forward towards its publication in the late summer, and

pre-publication orders are coming in fast. Publication of both these last two books has been assisted by grants from the Humanities Research Council of Canada.

A very large part of the department's efforts during the past year was directed towards the improvement of the marketing and distribution of ROM books. To this end we increased, both in number and scope, our mailings of catalogues and brochures, did more space advertising, and exhibitedROM publications at more book displays than in any previous year. We also adopted the device of marketing our publications in packages. A Canadiana package of some 34 ROM titles and 6 wall charts is distributed by the Lexicana Publishing Corporation, while Publication Services itself markets as a package five of our most important catalogues of Far Eastern art and antiquities.

The most important step taken in the quest for improved distribution was the appointment of the publishing company of Fitzhenry & Whiteside Ltd. as a distributor of ROM publications throughout Canada. The inauguration of the agreement was celebrated with a reception in the Members' Lounge on April 4, at which, in addition to staff members of Fitzhenry & Whiteside Ltd. and the ROM, officials of the Ontario Ministry of Education and of various school boards in Metro and members of the press were present.

The result of our various measures has been an increase of 46% in net sales over the previous year, which has brought the year's sales total to an all-time high that is almost double what it was four years ago. It would be unrealistic to suppose that we can maintain this rate of growth from year to year, but these figures give a heartening send-off to Publication Services' career as an independent department of the Museum.



ROM publications on display at the Canadian Library Association Convention in Montreal, June 1977.

Departmental Report

Administration & Facilities

Revenue Services Bob DesIslets, Head

Book and Gift Shops

The first quarter of the year was spent in planning improvements in the merchandise assortments, physical layout, and decor of the shops. In September an additional temporary gift shop was opened adjacent to the "Gold for the Gods" exhibition, featuring a wide assortment of merchandise from South America. This shop was extremely successful and the sale of everything from postcards to native handcrafts, reproductions of pre-Columbian jewellery, pottery, leather work, and fine quality Alpaca blankets, contributed handsomely to the shops' substantial increase in sales volume for the whole year.

The Christmas booth opened on schedule in mid-October, featuring many new seasonal items that were well received, including a new ROM Christmas card with a religious theme, reproduced from an Albrecht Durer woodcut from the European gallery. Once again a small booth was set up offering Christmas cards, wrappings, and tree ornaments at a Christmas luncheon for members of the Canadian Women's Club held in the Four Seasons Hotel.

To reflect the beauty and theme of the exhibition "In the Presence of the Dragon Throne", the Gift Shop was converted into an Oriental marketplace. With the assistance of John Vollmer, two students of design at Sheridan College, inspired by the Chinese robes, designed and hand-screened a limited edition of silk scarves incorporating eight designs, for which the original screens have now been destroyed. The ROM dragon pin in silver was redone in pewter, at a more attractive price.

A strong programme was developed for the production of replicas or adaptations of Museum artifacts for sale in the main Gift Shop and the Mini Shop. Jewellery reproductions of the "Gold for the Gods" Nazca mask were done by Vanessa Compton in 14-carat and gold-plated finish. With the cooperation of Dr. A. Gordon Edmund, reproductions of a dinosaur claw and a dinosaur toe were made by David Fisk, and a fossilized shark's tooth by Gordon Gyrmov, for sale to youngsters in the Mini Shop. All these items were instant best-sellers. Production of the first two of a series of ROM colouring books, one on dinosaurs and one on insects, with art work by Julian Mulock and text by Joanne Lindsay and Dr. David Barr, is now under way.

Also, of great importance, the very popular dinosaur models will soon again be for sale in the Mini Shop. We appreciate the counsel and supervision given by Dr. Chris McGowan and Dr. A. Gordon Edmund to model maker Fred Kay who made the eight new models. Opportunities are being pursued to produce further reproduction or adaptations of Museum material for educational purposes, for sale in the shops.

Mrs. P. Dowton, the shops' manager, resigned in November and Merrilyn Caldwell was promoted to the position of Supervisor/Buyer.

Revenue-generating Projects

Revenue Services, as part of a team with other departments, is moving ahead with a number of projects directed towards educationalists, other museums, and ROM visitors. Wholesale and direct mail facilities, designed to offer ROM produced items to schools, other museums, and the public are being developed. Work has been done to make available a wide assortment of

coloured photo slides for sale to the public. A number of contracts have been let to companies producing audio-visual educational kits, coloured slides, and drapery fabrics.

The modular exhibit system designed by John Hillen of Extension Services was carefully analyzed to confirm the value of continuing to produce these units for sale. A number have been sold to other museums, which are high in their praise of the system, which provides security and aesthetically pleasing displays under highly controlled conditions of conservation. More opportunities are being constantly sought to expand these activities.

Auditors' Report

To the Trustees of The Royal Ontario Museum:

We have examined the balance sheet of The Royal Ontario Museum as at June 30, 1977 and the statement of financial operations for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances, except as noted in the following paragraph.

Bequests, grants and donations to trust accounts, by their nature, are not susceptible of complete audit verification. Accordingly, our verification of receipts from these sources was limited to a comparison of recorded receipts with bank deposits.

In our opinion, except for the effects of any adjustments which might have been required had we been able to completely verify bequests, grants and donations, the accompanying financial statements present fairly the financial position of the Museum as at June 30, 1977 and the results of its operations for the year then ended in accordance with accounting principles generally accepted for non-profit organizations applied on a basis consistent with that of the preceding year.

Toronto, Canada, September 29, 1977.

Glarkson Gordon & Co.

Clarkson, Gordon & Co. Chartered Accountants

The Royal Ontario Museum (Incorporated by Special Act of the Ontario Legislature

as a corporation without share capital)

Balance Sheet June 30, 1977

(with comparative figures as at June 30, 1976)

	1977	1976
ASSETS		
Operating: Cash Short-term investments Excavation, field work and travel advances Accounts receivable Inventories Prepaid expenses Fixed, at nominal value — Land and buildings Contents	\$ 273,820 618,194 20,841 96,243 207,081 23,718	\$ 71,946 228,920 68,803 84,812 162,237 107,676
	1,239,899	724,396
Trust: Short-term investments Marketable securities, at cost (quoted market value: 1977 - \$4,138,000; 1976 - \$3,359,000) Accrued interest	681,806 4,163,912 107,435 4,953,153 \$6,193,052	853,080 3,525,565 64,875 4,443,520 \$5,167,916
LIABILITIES AND TRUST FUNDS		
Operating: Accounts payable and accrued liabilities Operating grants received in advance General reserve	\$ 575,242 348,815 315,842 1,239,899	\$ 348,356 376,040 724,396
Trust funds	4,953,153	4,443,520
	\$6,193,052	\$5,167,916

On behalf of the Board:

H. D. Guthrie, Trustee

Maxwell Henderson, Trustee

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The Royal Ontario Museum

Statement of Financial Operations

Year Ended June 30, 1977

(with comparative figures for the year ended June 30, 1976)

	1977			1976
	Operating	Trust	Total	Total
RECEIPTS:				
Operating:—				
Province of Ontario grants	\$7,036,123		\$7,036,123	\$6,575,000
Board of Education	82,106		82,106	53,439
Admission fees — Planetarium and general	245,915		245,915	243,774
Laserium	129,481		129,481	185,900
Museology fees and grants	80,033		80,033	72,409
Service departments (net)	55,683		55,683	47,598
Other	8,380		8,380	13,038
Trust:—				
Bequests, grants and donations		\$ 246,992	246,992	374,067
Province of Ontario grant for geochronology laboratory		, , , , , , , , , , , , , , , , , , , ,	,	300,000
Investment income		361,081	361,081	372,442
Membership fees		107,699	107,699	91,665
Admission fees		97,607	97,607	55,881
Other		261,305	261,305	308,582
Total receipts	7,637,721	1,074,684	8,712,405	8,693,795
EXPENDITURES: Artifacts and specimens		116,327	116,327	321 778
Building maintenance	514,299	110,327	514,299	321,778
Installation of geochronology laboratory	314,233		314,299	468,376
Equipment	106 405	100 247	206 742	299,982
Supplies	106,495	100,247	206,742	215,880
Excavations and fieldwork	233,622	166,896	400,518	341,645
	190,025	84,308	274,333	251,418
Gallery renovations Services	53,439	11 020	53,439	106,510
	265,895	11,829	277,724	262,428
Travel, expeditions	112,001	27,186	139,187	145,679
Exhibitions (net)	37,653	62,254	99,907	201,251
Books and periodicals	61,482	0.4.053	61,482	61,061
Publications	86,925	84,953	171,878	147,132
Advertising and publicity	132,220	5,079	137,299	71,746
Other	137,648	100 100	137,648	139,502
Salaries and wages	5,766,215	123,428	5,889,643	5,314,883
Total expenditures	7,697,919	782,507	8,480,426	8,349,271
Excess (deficiency) of receipts over expenditures				
before the following	(60,198)	292,177	231,979	344,524
Evpansion programme (note 2):				
Expansion programme (note 2): Financing provided by Ontario Universities				
Capital Aid Corporation and other grants,		1 170 022	1 170 022	F2F 000
donations and short-term interest thereon		1,179,923	1,179,923	525,000
Less expenditures relating to Museum expansion		962,467	962,467	605,578
		217,456	217,456	(80,578)
Excess (deficiency) of receipts over expenditures for the year	(60,198)	509,633	449,435	263,946
General reserve and trust funds, beginning of year	376,040	4,443,520	4,819,560	4,555,614
General reserve and trust funds, end of year	\$ 315,842	\$4,953,153	\$5,268,995	\$4,819,560
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NOTES TO FINANCIAL STATEMENTS

1. Summary of accounting policies

The following summary of accounting policies is set forth to facilitate the understanding of data presented in these financial statements:

- (a) *Inventories* Inventories, which consist mainly of book and gift shop items for resale and supplies, are stated at the lower of cost and realizable value.
- (b) Fixed assets Land and buildings and contents are carried at nominal values of \$1. Additions to fixed assets are expensed in the year of acquisition.

2. Expansion programme and related Province of Ontario and other financing

The Royal Ontario Museum has incurred expenditures totalling \$1,854,902 to June 30, 1977 (including \$962,467 in the current year) with respect to a programme of major renovations to, and expansion of, its facilities. To June 30, 1977, the Museum has received amounts, including grants and donations, totalling \$1,875,923 (including \$1,179,923 in the current year) in connection with such expenditures.

Included in such amounts received to date is \$1,750,000 (of which \$1,054,000 was received in the current year) from the Ontario Universities Capital Aid Corporation. In connection with the receipt of these amounts, the Museum has issued debentures payable in such amounts to the Ontario Universities Capital Aid Corporation.

Payments of debenture principal and interest are being made by the Ministry of Culture and Recreation of the Province of Ontario over a thirty-year period on behalf of the Museum; accordingly, the amount of the outstanding debentures (\$1,741,817 principal amount at June 30, 1977) has not been recorded as a liability in the accounts.

3. Anti-Inflation Programme

Under the provincial government's Anti-Inflation Programme (presently scheduled to be in force until December 31, 1978) The Royal Ontario Museum is subject to mandatory compliance, and is complying, with legislation which controls employee compensation.

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Calendar of Events

July 1, 1976 — June 30, 1977

Major Exhibitions

1976

July 5 to August 15. **Steuben: Seventy Years of American Glassmaking.** Organized by the Toledo Museum of Art.

September 28 to November 21. **Gold for the Gods.** An exhibition of pre-Columbian gold on loan from the Museo Oro del Peru.

1977

January 11 to March 13. **Paul Kane and the Native Peoples.** An exhibition of the ROM's collection of Kane paintings together with related artifacts. Organized by the Ethnology Department.

April 19 to August 14. In the Presence of the Dragon Throne: Chinese Costume of the Ch'ing Dynasty (1644-1911). Drawn from the ROM's spectacular Chinese costume collection. Organized by the Textile Department.

Third-Floor Rotunda

1976

July 29 to September 7. **Portraits of Indians.** Historic paintings circulated by the Glenbow Alberta Institute.

September 17 to November 21. **From Loom to Tomb.** Early Peruvian Textiles from the ROM's collections. To complement "Gold for the Gods".

September 17 to November 21. **Insect Design.** Paintings and illustrations of insects by ROM artists Julian Mulock and Anker Odum.

1976/77

December 14 to January 16. **Counterpoints.** Contemporary tapestry hangings by Helen Frances Gregor, head of textiles at the Ontario College of Art.

January 26 to March 6. **Reflections of Nature.** Colour photographs by Barry Ranford, Toronto.

March 16 to June 5. **Gemstones.** Circulated by the National Museum of Natural Sciences, Ottawa.

Lower Rotunda

1976

July 20 to August 15. **Men and Birds.** A collection of woodcuts by Danish painter Gitz-Johansen circulated by Dorothy T. van Arsdale Associates.

September 3 to November 21. **Town and Country in Peru.** Photographs of contemporary Peru. To complement "Gold for the Gods".

December 1 to January 1. **Children Behold the Chimpanzee.** Circulated by the Portland Zoological Gardens.

1977

January 15 to February 13. **Vue d'optique.** Paper sculpture by Jacqueline Kaplan, Tamarac, Florida.

March 8 to April 1. **Children's Art** by members of the ROM's Saturday Morning Club.

April 19 to July 10. Faces of Old China. Early 20th-century photographs from the Far Eastern Department scrapbooks.

Stamps — Lower Level

1976

August 16 to October 3. Early Postal Rates of Canada.

October 4 to November 14. Embroidered Postcards from World War I.

November 16 to December 12. **One Penny George V Issues of Australia.**

December 14 to January 2. Canadian Christmas Seals Between the Two Wars.

1977

January 3 to February 13. The Squared Circle Cancellations of Great Britain.

February 15 to March 27. Thirteen Cent Quebec Citadel Stamp of 1932.

March 29 to May 15. The Stamp Postcards of Ottmar Zieher.

May 16 to June 26. Paid to the Lines: A Story of Routes and Rates.

Textile Gallery

1976

August 30 to December 1. **Costume of the Andes.** To complement "Gold for the Gods".

1976/77

Early September to March 31. **Felt-making.** Carpets and garments from Turkey, Iran, and Afghanistan. Third-floor Textile gallery.

October 8 to June 30. What's in a Name? An exhibition of pattern drafts and coverlets with intriguing names.

1977

February 7 to September 7. **Carpets from Tunisia.** Recent gifts of Dr. Michael Pflug.

February 20 to August 31. East Asian Costume Technology.

Canadiana Gallery

1976

September 16 to December 12. Urban Life in Lower Canada.

1976/77

December 15 to March 7. Explorations of the Arctic.

1977

March 17 to June 13. In Retrospect: The Work of Owen Staples (1866-1949).

June 16 to September 18. **Two Gentlewomen of Upper Canada.** Watercolours and drawings by Anne Langton and Agnes Moodie Fitzgibbon.

Miscellaneous Exhibitions

1976

September 28 to November 21. To complement "Gold for the Gods":

Gold and Silver, Gems and Semi-precious Stones. Mineralogy gallery.

Some Birds of Peru. Ornithology gallery. **Spanish Artifacts.** European galleries.

Displays Around Town included: CN Tower, Ground Floor; Toronto-Dominion Centre; Cedarbrae District Library; Bendale Public Library.

August 30 to December 16. **Contemporary Native Art** — **Woodland Indians.** Ethnology gallery.

1976/77.

December 17 to March 10. Contemporary Native Art of Canada — The Western Subarctic. Ethnology gallery.

December 10 to August 31. Display of "Fool's Gold" (Pyrite). Mineralogy gallery.

1977

To complement "In the Presence of the Dragon Throne": April 7 to July 10. In the Presence of the Past. Portraits of dignitaries from the Far Eastern collections. Far Eastern galleries XIII and XV.

Material from the Far Eastern collections showing fact, fiction, and forms of the dragon. Far Eastern gallery XVI.

March 14 to April 30. **The Native People of North America** portrayed by E.S. Curtis. Photogravures in the collection of the Ethnology Department. Ethnology gallery.

May 11 to January 1978. **Mediaeval Textiles from the Mediterranean Basin.** Coptic and Islamic textiles from ROM's collections. Coptic gallery, 2nd floor.

May 15 to June 30. **Silk Screens of Famous Native Artists from Northern Ontario** (Triple K Co-operative). Ethnology gallery.

April 20 to July 1. **Contemporary Czechoslovakian Art Glass** from the collection of Mr. J. Markovic. To herald the autumn exhibition "A Gather of Glass".

Concerts

1976

July 10. Musical Fairy Tales from Many Lands. Performed by the York Winds and supported by Wintario and Metropolitan Toronto. Bishop White gallery, 3:00 p.m.

December 13 to 17. Christmas Concerts. The Choir of St. George's College. Main Rotunda, 12:30 to 1:30 p.m.

1977

May 1 and June 12. **Cantonese Music Club.** To complement "In the Presence of the Dragon Throne". Bishop White gallery, 3:00 p.m.

May 15, 29, and June 26. **Chinese Opera Group** (Mandarin). To complement "In the Presence of the Dragon Throne". Bishop White gallery, 3:00 p.m.

Lecture Series

1976

Gold Lecture Series 2. ROM theatre, Thursdays at 8:00 p.m.

September 30. **Gold for the Gods.** Dr. Kent Day, Field Director at ROM's archaeological site at Pampa Grande, Peru, and Assistant Curator, Office of the Chief Archaeologist.

October 7. **Gold.** Dr. Joseph Mandarino, Curator, Mineralogy and Geology Department.

October 14."All That Glisters . . ." Dr. Lisa Golombek, Associate Curator, West Asian Department.

October 21. **Green Gold: Maya World.** Dr. David Pendergast, Field Director at ROM's archaeological site at Lamanai, Belize, and Curator, Office of the Chief Archaeologist.

October 28. **Golden Staters and Silver Drachms.** Mrs. Alison Easson, Assistant Curator, Greek and Roman Department.

November 4. **Pre-Inca and Inca Metallurgy.** Dr. A.D. Tushingham, Chief Archaeologist.

November 11. Invisible Gold: The Looting of Tenochtitlan, Moctezuma's Capital. Mr. Leo Rosshandler, Deputy Director, Montreal Museum of Fine Arts.

November 18. **Gold Rush to the Klondike.** Mr. Pierre Berton, author and broadcaster.

1977

Science Lecture Series. Communication in Animals. ROM theatre, Thursdays at 8:00 p.m.

February 3. **Sound Production in Fish.** Dr. Alan Emery, Associate Curator, Department of Ichthyology and Herpetology.

February 10. **The Meaning and Structure of Bird Songs.** Dr. Bruce Falls, Associate Chairman (Undergraduate Affairs), Department of Zoology, University of Toronto.

February 17. **Vocalization in Amphibia.** Dr. Carl Garhardt, Division of Biological Sciences, University of Missouri, Columbia, Missouri.

February 24. The Rituals of Loving and Fighting in Lizards and Snakes. Professor Charles C. Carpenter, Department of Zoology, University of Oklahoma, Norman, Oklahoma.

March 3. Moose and Caribou Behaviour and Communication. Dr. Anton Bubenik, Research Branch, Department of Lands and Forests, Maple, Ontario.

March 10. Insect Sound Communication. Dr. Glenn Morris, Associate Professor of Zoology, Erindale College, University of Toronto.

March 17. **Whales.** Dr. W.E. Schevill, Woods Hole Oceanographic Institution, Woods Hole, Massachusetts.

March 24. **Echolocation in Bats.** Dr. Brock Fenton, Department of Biology, Carleton University, Ottawa.

Chinese Costume Series.

Planetarium lecture room, Thursdays at 8:00 p.m.

April 21. Symbolism of Ch'ing Dynasty Costume. Edmund Capon, Victoria and Albert Museum. Cancelled owing to lecturer's illness.

April 28. Chinese Archaeological Textiles. John Vollmer, Assistant Curator-in-Charge, Textile Department.

May 5. Clothing and the Politics of Conquest. John Vollmer, Textile Department.

Miscellaneous Lectures

1976

October 25. Insects and People. Dr. Donald A. Chant. Sponsored by the Entomological Societies of Canada and Ontario, ROM theatre, 8:00 p.m.

December 15. **Chimpanzees.** Mrs. Lucie Ogilvie, former supervisor of the Chimpanzee Enrichment Programme of the Portland Zoo. Sponsored by the Metro Toronto Zoological Society, ROM theatre, 8:00 p.m.

December 16. "A Kind of Gentel Painting": The English Portrait Miniature. Michael Liversidge, Lecturer in Art History, University of Bristol. Planetarium lecture room, 8:30 p.m.

1977

February 23. Excavations in Iran — Exotic Decorations in a Rebel Fortress. Dr. Edward J. Keall, West Asian Department. Planetarium lecture room, 8:00 p.m.

April 14. **The Survival of the Warp-weighted Loom in Northern Europe.** Dr. Marta Hoffman, leading Norwegian textile authority. Planetarium lecture room, 8:00 p.m.

May 3. **Silver Serendipity.** Arthur Grimwade of Christie's, London. Planetarium lecture room, 8:00 p.m.

May 11. Coptic and Mediaeval Textiles: How They Provide Insights into Their Historical Contexts. Deborah Thompson, Dumbarton Oaks, Washington, D.C.

The following two lectures formed a part of "Celebration," marking Senior Citizens' Week and ROM's 65th Anniversary. ROM theatre, 2:00 p.m.

June 7. Using Archives in Tracing Your Family. David Russell, Archives of Ontario.

June 21. **Restoring Historic Homes.** Dorothy Duncan, Ontario Ministry of Culture and Recreation.

Extension Courses

1976

September 28 to December 14. **Exploration of the Universe.** Given by Henry C. King, Curator, McLaughlin Planetarium. Tuesdays at 8:00 p.m.

October 12 to November 30. **Images of Man in Renaissance Sculpture.** Given by K. Corey Keeble, Assistant Curator, European Department. Tuesdays at 7:30 p.m.

The above courses were offered in cooperation with the School of Continuing Studies, University of Toronto.

October 13 to December 8. Introducing Astronomy. Given by Norman Green, Assistant Curator, McLaughlin Planetarium. Wednesdays at 8:00 p.m.

October 25 to December 13. **Introduction to Observing.** Given by Robert Ballantyne and William Peters, McLaughlin Planetarium. Mondays at 8:00 p.m.

1977

February 1 to April 19. **Time.** Given by Dr. Henry C. King, Curator, McLaughlin Planetarium. Offered in cooperation with the School for Continuing Studies, University of Toronto. Tuesdays at 8:00 p.m.

February 7 to April 4. **Introducing Astronomy.** Given by Norman Green, Assistant Curator, McLaughlin Planetarium. Mondays at 8:00 p.m.

Subscription Lecture Series

1976

Textile Endowment Fund Committee. Oriental Rugs lecture series by John Vollmer and Veronika Gervers, Textile Department. Planetarium lecture room, September 28 and October 5, 12, and 19 at 8:00 p.m.

Bishop White Lecture Series. "Introducing the Chinese Collection." Proceeds to the Far Eastern Endowment Fund. Far Eastern galleries, October 19 and 26 and November 2, 9, and 16, at 11:30 a.m.

1977

Bishop White and **Textile Endowment Fund Committees.** Lecture series emphasizing Chinese costume. Planetarium lecture room, April 5, 12, 19, and 26 and May 3 and 10, at 11:30 a.m.

Archaeological Institute of America

1976

Planetarium lecture room, 4:30 p.m.

October 13. Architecture, Economics, and Reciprocity in Pre-Columbian Peru. Dr. Kent Day, Assistant Curator, Office of the Chief Archaeologist.

November 17. Mummies and Magic: An Introduction to Ancient Egyptian Funerary Beliefs and Practices. Lanny Bell, University Museum, Philadelphia University of Pennsylvania.

December 8. Nineteenth-Century Ontario Potteries. David Newlands, Curatorial Assistant, Canadiana Department.

1977

January 12. The Changing Landscape: Excavations at Fengate, England, 1971-1976. Francis M.M. Pryor, Office of the Chief Archaeologist.

February 16. Aegean Bronze-Age Fresco Restoration: Theoretical **Principles.** Prof. Mark Cameron, University of Western Ontario.

March 9. A Roman Provincial City: Trier. Dr. Edith M. Wightman, McMaster University.

April 20. Recent Chinese Archaeology. Joan Hartman, China Institute, New York University.

Lectures Sponsored by the Society for the Study of Egyptian Antiquities

Planetarium lecture room, 8:30 p.m.

1976

October 21. **The Egyptian Oases.** Professor Donald B. Radford, University of Toronto.

December 2. Altered State of Consciousness in Ancient Egypt. Dr. Frank T. Milosi, University of Toronto.

1977

January 20. Excavations of Meroe, 1974-76. Professor Peter L. Shinnie, Department of Archaeology, University of Calgary.

March 3. The Salvage of the Monuments of Philae. Professor Louis Zabkar, Brandeis University.

April 22. Excavations at Tel Ed-Daba. Dr. Bietak, Austrian Archaeology Institute of Cairo.

Films

1976

July 7 to August 11. The Great Director — D.W. Griffith (1875-1948). ROM theatre, Wednesdays at 7:30 p.m.

July 11 to August 8. Masks of Tragedy. Films of 5th-century B.C. Greek Dramas. ROM theatre, Sundays at 7:30 p.m.

July 6 to August 17. America with Alistair Cook. ROM theatre, Tuesdays and Thursdays at 5:30 p.m.

July 8 to August 12. Films for Senior Citizens. ROM theatre, Thursdays at 10:30 a.m.

September 28 to November 21. **Gold for the Gods Film Programme.** ROM theatre, Monday at 2:00 p.m., Tuesday to Friday at 2:00 and 5:30 p.m., Saturdays and Sundays at 2:30 and 7:30 p.m.

October 24. **The Hellstrom Chronicle.** ROM theatre, 4:00 and 8:00 p.m. with evening panel discussion by leading entomologists.

October 30. **Films on Musical Instruments from Many Lands** to mark UN Week.

1977

January 9 to March 20 (bi-weekly). A Place to Stand. Family films with an introduction by members of ROM staff. ROM theatre, alternate Sundays at 2:30 p.m.

January 16 to March 27 (bi-weekly). **A Way of Life.** Films for a more mature audience. ROM theatre, alternate Sundays at 2:30 p.m.

April 3. **Potters at Work** by Marty Gross and **Spirit in a Landscape** by Carol Myers for the CBC's "Images of Canada" series. The film-makers were on hand to introduce their work. ROM theatre, 2:30 p.m.

May 22 to June 12. **China: The Enduring Heritage.** ROM theatre, Sundays at 7:30 p.m.

ROM World Civilization Tours

1976

November 15 to 18. Bicentennial Trip to Washington, D.C.

1977

May 10 to June 1. Galapagos '77.

May 21 to June 6. Galapagos '77.

Special Events

ROM facilities are used on a regular basis throughout the year by a number of clubs including the Walker Mineralogical Club, the Ontario Archaeological Society, the Royal Astronomical Society,

the Saturday Morning Club, the Junior Field Naturalists, the Brody Club, and the Toronto Entomological Society.

July 1. Concert by the band of the Governor General's Horse Guards, Main Rotunda.

July 4. Public opening of the exhibition "Steuben: Seventy Years of American Glassmaking" by Raymond Ylitalo, Consul General of the United States. The Honourable Pauline McGibbon was guest of honour.

August 6. Presentation to Dr. Loris Russell of Athlon: Essays on Palaeontology in Honour of Loris Shano Russell.

August 9. Astronomy Day for Campers, McLaughlin Planetarium.

August 30. Life Members' viewing of the exhibition "Contemporary Native Art — the Woodland Indians". The occasion also marked the publication of the book *Ojibway Heritage* by Basil Johnston, Department of Ethnology, published by McClelland and Stewart Ltd.

September 17. International Council of Museums meeting, Room 4.

September 21. Canadian Gemmological Association tour and reception in the Mineralogy gallery.

September 23. Open House at the Sigmund Samuel Canadiana gallery 6:00 to 9:00 p.m.

September 27 and 28. Members' openings of the exhibition "Gold for the Gods". Music by Nexus.

September 30 to October 30. "The Royal Hunt of the Sun" was presented by the Toronto Truck Theatre at the Colonnade Theatre in collaboration with "Gold for the Gods".

October 16. Near Eastern Studies symposium, Planetarium lecture room.

October 16. Geology bus trip to Scarborough bluffs led by Dr. Walter Tovell. Organized the the Members' Committee.

October 22, 23. Royal Society of Canada symposium "New Perspectives in Canadian Archaeology", Planetarium lecture room and ROM theatre. Lunch at Canadiana Gallery.

October 24, 25. Public films, photo salon screening and lecture, and tea for delegates' wives to coincide with joint annual meeting of the Entomological Societies of Canada and Ontario.

November 2. Press reception to launch gallery guides by the Members' Committee.

November 5. Cultural Agencies luncheon.

November 8. Reception and viewing of "Gold for the Gods" for new members.

November 11. Teilhard de Chardin Society lecture.

November 13. Ontario Film Association seminar.

November 15. Director's reception and viewing of "Gold for the Gods"

November 19. Presentation to the Department of Ethnology of paintings in memory of Stella Karpus by the Members' Committee.

November 20. Open House, Canadiana gallery, 1:00 to 4:00 p.m.

November 22 and 23. U.S. Service management seminar.

November 30. Chinese cooking for Canadians. Presented by the Bishop White Committee at Consumers' Gas Company.

December 6. Toronto Power Squadron, Star Theatre rental and reception.

December 9. Holiday Party at ROM. Gala dinner dance organized by the Members' Committee.

December 9. Archives meeting.

December 13. Private opening of "Counterpoints" exhibition.

December 17. ROM staff Christmas party.

1977

January 10. Members' opening of Paul Kane exhibition.

February 3. Suttles and Seawinds Fashion Show at the Canadiana gallery.

February 8. Opening of Laserium II at the McLaughlin Planetarium.

February 9. Luncheon sponsored by the Members' Committee for other voluntary arts organizations.

March 8. "Behind the Scenes at the ROM" organized by the Members' Committee to mark extended evening hours.

March 9. Opening of the Geochronology Laboratory.

March 10. Reception for the artists from Jean Marie River Native Arts Centre, North West Territories, in connection with their exhibition in the Ethnology galleries.

April 4. Reception to mark the signing of the contract between Fitzhenry & Whiteside Ltd. and ROM in connection with the distribution of ROM publications.

April 18, Members' opening of the exhibition "In the Presence of the Dragon Throne" by Mr. Gordon Wotherspoon, Chairman of the ROM Board of trustees and R. Fay Liu of the Chinese community.

April 20. Gala Dinner and Celebration of "In the Presence of the Dragon Throne". Proceeds to the Far Eastern and Textile Endowment Funds.

April 25. New Members' Night.

April 28. Reception for the Consular Corps by Premier William Davis at the Canadiana gallery.

April 26, May 10 and 24. Calligraphy demonstrations to complement "In the Presence of the Dragon Throne".

April 30 and May 1. American Ceramics Circle seminar.

May 2. Director's reception in the Sung gallery.

May 11 and 12. Seminar on Mediaeval Textiles.

May 14. Spring bus tour to Peterborough led by Dr. and Mrs. Walter Tovell. Organized by the Members' Committee.

May 17. Members' Committee annual meeting.

May 17. Reception for the artists in connection with the Ethnology gallery exhibition by the Triple K Co-operative.

May 18. Staff/Board day.

Calendar of Events

May 28, June 11 and 25. Bus and walking tours through China Town. Organized by the Members' Committee in collaboration with the Chinese community to complement "In the Presence of the Dragon Throne".

June 7 and 21. Demonstrations by the Toronto Tai Chi Association to complement "In the Presence of the Dragon Throne".

June 7 to 28. Celebration marking Senior Citizens' Week and ROM's 65th anniversary. Lectures, films, or tours on Tuesdays at 2:00 p.m., followed by demonstrations/discussions at 2:45 p.m.

June 25. Generation Celebration. Junior/Senior Day with afternoon activities throughout the Museum.

June 29. Staff retirement party for Mr. W.H. Bayley, Mrs. D.K. Burnham, Mrs. H.M. Downie, Mr. I. Lindsay, Dr. W.B. Scott, Mr. F. Smyth, Mrs. F. Stanley, Mr. P. Teewiss.

June 30. Royal Astronomical Society of Canada General Assembly.

Bequests, Donations, and Grants July 1, 1976 – June 30, 1977

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